2015 Input-Output Tables for Japan

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INPUT-OUTPUT

Economically, countries constitute complex networks of inter-industry relations, involving production and distribution of economic goods to final consumers, households, governments, and the rest of the world. The statistical and mathematical description of this process is provided by the input-output table, a fundamental part of the input-output analysis, intuited by François Quesnay in the 18th century and developed by Wassily Leontief, a Russian-American economist, in the mid-20th century.

The acceptance of the methodology of inter-industry relations, or input-output analysis, by national governments on all continents has produced excellent expositions of the internal structures of important world economies. For its didactic clarity, we present here Japan's input-output tables compiled by an inter-ministerial commission for 2015, preceded by an exhaustive theoretical explanation, a true input-output manual, with important theoretical details not mentioned in the usual university coursebooks.

Economicamente, os países constituem complexas redes de relações interindustriais, envolvendo produção e distribuição de bens econômicos aos consumidores finais, famílias, governos e resto do mundo. A descrição estatística e matemática deste processo é proporcionada pela tabela de entrada e saída, peça fundamental da análise de insumo- produto, intuída por François Quesnay no século XVIII e desenvolvida por Wassily Leontief, economista russo-americano, em meados do século XX.

A aceitação da metodologia das relações interindustriais, ou da análise de input-output, pelos governos nacionais, em todos os continentes tem produzido excelentes exposições das estruturas internas de importantes economias do mundo. Por sua clareza didática, apresentamos aqui tabelas de insumo-produto do Japão compiladas para 2015, precedidas por exaustiva explicação teórica, um verdadeiro manual de input-output, com detalhes importantes não mencionados em livros didáticos.

SOURCES:

https://www.soumu.go.jp/english/dgpp_ss/data/io/index.htm

EXPLICATIVE NOTES

https://www.soumu.go.jp/english/dgpp_ss/data/io/io15_00001.htm

2015 Input-Output Tables for Japan

Joint Compilation

Ministry of Internal Affairs and Communications
Cabinet Office
Financial Services Agency
Ministry of Finance
Ministry of Education, Culture, Sports, Science and Technology
Ministry of Health, Labour and Welfare
Ministry of Agriculture, Forestry and Fisheries
Ministry of Economy, Trade and Industry
Ministry of Land, Infrastructure, Transport and Tourism
Ministry of the Environment

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CHAPTER Ⅰ
JAPAN'S ECONOMIC STRUCTURE AS VIEWED FROM 2015 INPUT-OUTPUT TABLES

1. Overview

The economic status quo of a particular economy for a particular period of time (normally on a yearly duration basis) may be inferred from the input-output tables (I-O tables) by analyzing the inter-industrial good and service transactions as recorded under the matrix column. As an illustration, a straightforward overall picture of the 2015 I-O tables for Japan with 13 sectors is depicted in Table 1 and the economic structure as inferred from the aforesaid tables is shown in Chart 1-1.

The values of Domestic production as well as the input components (for goods and services) of the individual sector may be inferred from the figures as appeared in the column sector of the I-O Tables. Moreover, the sales amount of Domestic production as well as import of the respective goods and service demanded may be inferred from the row sector of the tables.

To begin with, as deduced from the aforesaid tables, the Total supply of goods and services in 2015 was 1119.99 trillion yen out of which the Domestic production amounted to 1017.82 trillion yen (90.9% of the Total supply value) while the Imports valued at 102.17 trillion yen (9.1% of the Total supply value). As compared to 2011, Total supply has increased by 9.5% due to increases in Domestic production and in the values of Imports by 8.3% and 22.9%, respectively.

In light of the cost structure for Domestic production, Intermediate input of goods and services used in production, such as raw materials and fuels, amounted to 469.58 trillion yen. The Ratio of intermediate input, which represents the ratio of Domestic production accounted for by Intermediate inputs, decreased from 49.2% in 2011 to 46.1% in 2015.

Gross value added, which is another structural element for Domestic production, amounted to 548.24 trillion yen, and the Ratio of gross value added, which represents the ratio accounted for by gross value added in Domestic production, was 53.9%. In addition, Gross value added is broken down into Compensation of employees (48.5%), Operating surplus (19.0%), and Consumption of fixed capital (23.9%). Operating surplus and Consumption of fixed capital increased compared to 2011, while Compensation of Employees decreased.

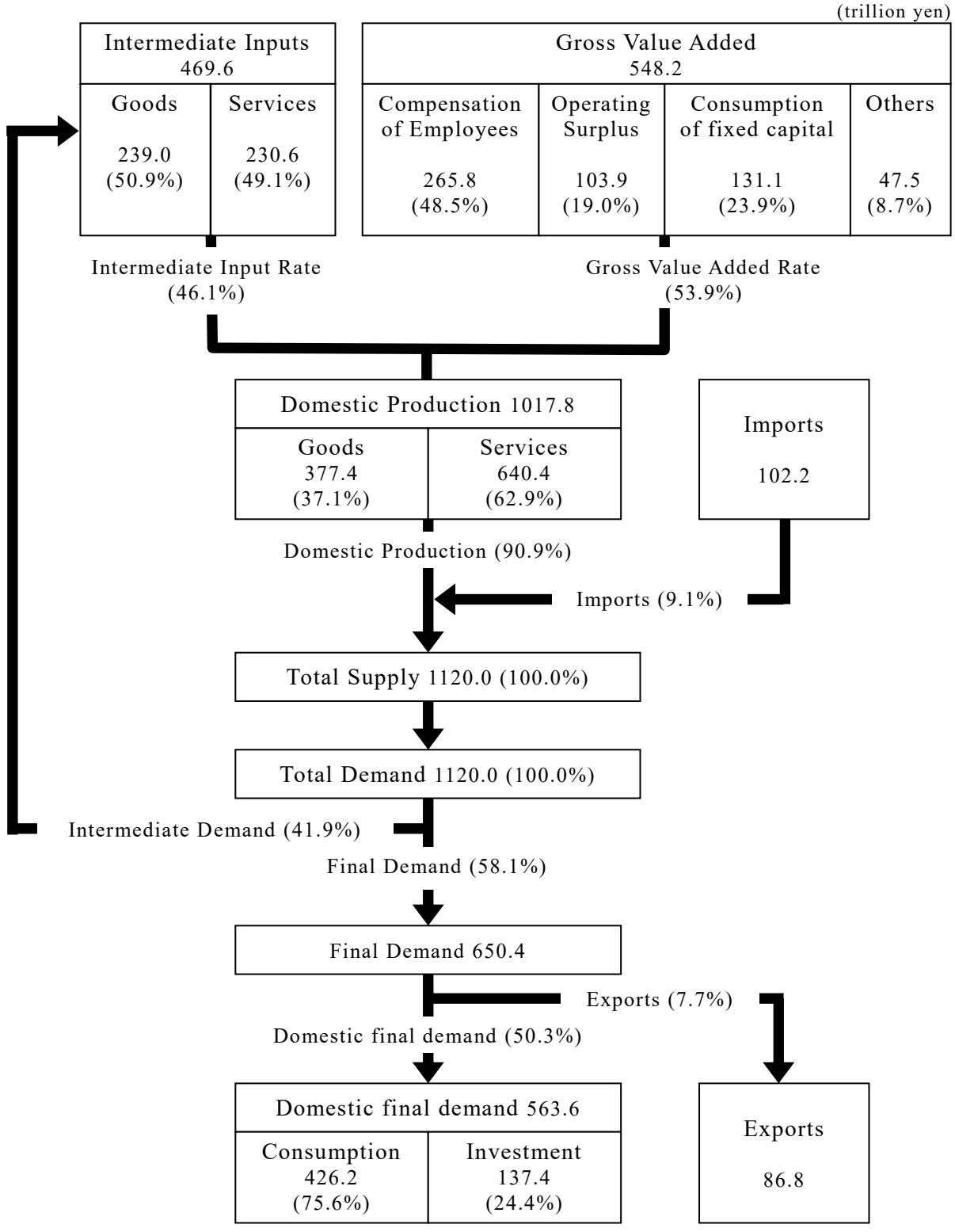
Furthermore, observing from the demand side, the total demand of goods and services demanded in 2015 is 1119.99 trillion yen, of which the value of intermediate demand for goods and services used in production activities, such as raw materials and fuels, amounted to 469.58 trillion yen (41.9% of the Total demand value). Domestic final demand amounted to 563.64 trillion yen (50.3% of the Total demand value), and exports amounted to 86.77 trillion yen (7.7% of the Total demand value). Observing the breakdown of Domestic final demand, Consumption amounted to 426.20 trillion yen (75.6% of the Domestic final demand), and Investments amounted to 137.44 trillion yen (24.4% of the Domestic final demand).

Comparing these figures to those from 2011, Intermediate demand increased by 1.5%. Within Domestic final demand, Consumption and Investments increased by 8.9% and 43.0%, respectively. Exports increased by 19.7%, and accounted for 7.7% of the value of Total demand, showing an increase of 0.6 points from the ratio in 2011.

Explanations regarding each item are given starting on the following page.

(Note) Table 1-1 is the “Input-Output Table Valued at Producers’ Prices” that evaluates transactions in terms of producers’ shipment price. Table 1-2 is the “Input-Output Table Valued at Purchasers’ Prices” that evaluates shipment prices using prices that include marketing costs (commercial margin and domestic freights). In this chapter, statements are made based on the Input-Output Table Valued at Producers’ Prices unless otherwise specifically stated.

Chart 1-1. Flowchart of Goods and Services in Light of the 2015 Input-Output Tables



Notes:

1: 'Goods' refers to sector 01 to 41 and 68 of the 37 sector classification, while 'Services' refers to sector 46 to 67 and 69.

2: In this Chart, consumption is the total of "Consumption expenditure outside households," "Consumption expenditure (private)," and "Consumption expenditure of general government," while investment is the total of "Gross domestic fixed capital formation," and "Increase in stocks."

3: Component figures may not add up to the total, because of rounding.

Table 1-1 Input-Output Table Valued at Producers' Prices (13 Sectors)

			Intermediate demand											
			01	02	03	04	05	06	07	08	09	10	11	12
Intermediate Inputs	01	Agriculture, forestry and fishery	1,566.7	0.1	8,148.3	63.5	0.0	11.3	0.0	0.2	2.3	0.0	1.7	1,516.3
	02	Mining	0.4	1.5	13,108.2	380.4	7,618.8	0.3	0.0	0.1	0.4	0.0	0.4	4.4
	03	Manufacturing	2,970.5	69.7	133,599.3	17,291.3	1,931.1	3,049.7	1,029.1	188.4	7,131.7	2,444.6	1,975.7	30,940.6
	04	Construction	30.2	2.6	589.4	37.9	490.2	276.7	86.8	722.7	358.5	170.9	324.3	609.2
	05	Electricity, gas and water supply	126.8	34.2	6,751.7	242.4	2,741.6	2,367.2	221.4	356.8	894.2	374.8	635.6	5,731.7
	06	Commerce	843.4	17.5	13,892.6	3,375.9	518.8	1,031.7	188.3	100.5	1,490.6	603.9	391.6	10,085.4
	07	Finance and insurance	81.0	34.3	1,944.9	762.1	511.4	1,634.0	1,636.0	6,138.2	1,254.2	279.3	836.6	2,202.3
	08	Real estate	23.5	7.0	589.8	276.2	145.3	2,656.4	541.3	2,408.8	1,060.6	1,156.1	63.5	2,807.8
	09	Transport and postal services	727.1	176.1	7,943.0	2,669.6	1,041.5	5,133.0	1,263.3	213.2	6,643.4	1,364.7	1,375.5	5,915.6
	10	Information and communications	48.7	6.8	1,895.8	536.1	453.5	3,563.9	2,046.5	276.6	566.3	8,453.6	1,207.3	9,294.1
	11	Public administration	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	12	Services	276.6	46.7	9,839.3	5,847.4	2,531.7	8,377.2	4,328.1	2,290.2	6,811.4	9,190.5	4,742.6	24,178.2
	13	Activities not elsewhere classified	50.6	10.4	937.2	848.7	110.8	649.8	165.4	140.0	454.6	132.2	37.2	1,191.5
		Sub-total	6,745.5	406.9	199,239.5	32,331.5	18,094.7	28,751.0	11,506.2	12,835.6	26,668.3	24,170.7	11,592.0	94,477.1
Gross Value Added		Consumption expenditure outside households	81.6	37.2	3,653.9	1,245.0	308.8	2,284.2	1,073.2	313.3	900.0	930.4	434.3	3,773.9
		Compensation of employees	1,493.9	174.0	45,418.5	21,261.5	2,591.0	37,218.4	11,062.0	4,671.8	15,584.7	10,500.2	14,323.7	101,439.9
		Operating surplus	2,810.8	77.2	14,918.0	1,706.7	1,302.6	14,811.2	8,985.8	31,773.5	3,207.5	7,226.2	0.0	15,521.1
		Consumption of fixed capital	1,997.2	93.3	29,252.6	2,337.0	6,084.0	8,486.2	2,600.4	27,161.0	6,343.1	5,525.1	13,315.2	27,646.0
		Indirect taxes	513.5	59.6	10,524.3	2,246.8	1,031.6	3,974.9	746.7	3,986.7	2,454.8	1,622.5	73.9	8,350.4
		(Less) Current subsidies	-754.9	-0.3	-197.5	-292.0	-233.4	-47.0	-526.1	-23.0	-149.1	-0.7	0.0	-1,012.6
		Sub-total	6,142.1	441.0	103,569.7	28,505.1	11,084.6	66,727.9	23,942.1	67,883.3	28,341.1	25,803.8	28,147.1	155,718.7
Domestic production			12,887.6	847.9	302,809.2	60,836.6	29,179.3	95,478.9	35,448.2	80,718.9	55,009.4	49,974.5	39,739.0	250,195.8

(billion Yen)

		Final demand								h	i	j
13	Sub-Total	a	b	c	d	e	f	g	Sub-total			
0.0	11,310.4	68.0	3,821.8	0.0	193.4	189.3	4,272.5	112.6	4,385.1	15,695.5	-2,807.9	12,887.6
1.0	21,116.0	-5.4	-6.1	0.0	-6.5	-1.9	-19.9	45.1	25.2	21,141.3	-20,293.3	847.9
270.5	202,892.3	1,639.3	57,442.5	6.8	39,357.7	110.8	98,557.2	65,612.6	164,169.7	367,062.0	-64,252.8	302,809.2
0.0	3,699.4	0.0	0.0	0.0	57,137.2	0.0	57,137.2	0.0	57,137.2	60,836.6	0.0	60,836.6
27.8	20,506.3	9.4	8,797.6	-212.4	0.0	0.0	8,594.6	81.7	8,676.3	29,182.6	-3.3	29,179.3
47.2	32,587.1	1,663.5	48,154.7	10.3	7,396.2	181.6	57,406.4	5,674.9	63,081.3	95,668.4	-189.5	95,478.9
13.4	17,327.8	0.3	17,774.6	0.0	0.0	0.0	17,774.9	1,744.9	19,519.8	36,847.6	-1,399.4	35,448.2
147.8	11,884.1	0.0	65,914.1	22.0	2,853.7	0.0	68,789.8	46.9	68,836.6	80,720.7	-1.8	80,718.9
443.8	34,909.6	416.1	15,055.3	52.5	830.9	50.4	16,405.2	7,303.9	23,709.1	58,618.8	-3,609.4	55,009.4
354.4	28,703.7	180.6	13,261.5	36.2	9,377.9	-27.0	22,829.3	763.1	23,592.5	52,296.2	-2,321.7	49,974.5
1,157.3	1,157.3	0.0	1,167.7	37,414.0	0.0	0.0	38,581.7	0.0	38,581.7	39,739.0	0.0	39,739.0
297.3	78,757.3	11,083.5	74,222.6	68,199.9	19,792.4	0.0	173,298.4	5,378.5	178,676.9	257,434.2	-7,238.4	250,195.8
0.0	4,728.3	0.0	10.0	0.0	0.0	0.0	10.0	5.3	15.3	4,743.6	-50.6	4,693.0
2,760.6	469,579.7	15,055.5	305,616.4	105,529.3	136,932.9	503.3	563,637.4	86,769.4	650,406.8	1,119,986.5	-102,168.1	1,017,818.4

19.6	15,055.5
59.4	265,799.2
1,564.8	103,905.3
230.1	131,071.1
82.1	35,668.0
-0.0	-3,260.4
1,932.4	548,238.7
4,693.0	1,017,818.4

Column Codes are:

a : Consumption expenditure outside households
b : Consumption expenditure (private)
c : Consumption expenditure of general government
d : Gross domestic fixed capital formation
e : Increase in stocks
f : Total Domestic final demand
g : Exports
h : Total demand
i : (Less) Imports
j : Domestic production

Notes:

1. Component figures may not add up to the total because of rounding.
2. The values of intermediate transactions include consumption tax. However, exports exclude consumption tax because they are duty free.

Table 1-2 Input-Output Table Valued at Purchasers' Prices (13 Sectors)

			Intermediate demand											
			01	02	03	04	05	06	07	08	09	10	11	12
Intermediate Inputs	01	Agriculture, forestry and fishery	1,709.3	0.1	9,731.9	133.1	0.0	23.9	0.0	0.4	3.8	0.0	3.0	2,625.3
	02	Mining	0.6	2.2	13,864.1	588.2	8,698.2	0.3	0.0	0.1	0.5	0.0	0.8	5.3
	03	Manufacturing	3,996.8	89.0	149,830.0	21,612.6	2,167.7	3,905.7	1,221.6	285.7	8,745.4	3,120.5	2,329.0	40,870.0
	04	Construction	30.2	2.6	589.4	37.9	490.2	276.7	86.8	722.7	358.5	170.9	324.3	609.2
	05	Electricity, gas and water supply	126.8	34.2	6,751.7	242.4	2,741.6	2,367.2	221.4	356.8	894.2	374.8	635.6	5,731.7
	06	Commerce	0.0	0.0	0.0	0.0	0.0	189.5	0.0	0.0	0.0	0.0	0.0	0.0
	07	Finance and insurance	81.0	34.3	1,944.9	762.1	511.4	1,634.0	1,636.0	6,138.2	1,254.2	279.3	836.6	2,202.3
	08	Real estate	23.5	7.0	589.8	276.2	145.3	2,656.4	541.3	2,408.8	1,060.6	1,156.1	63.5	2,807.8
	09	Transport and postal services	393.6	172.5	3,093.5	1,358.7	232.3	4,927.5	1,210.2	197.7	6,454.2	1,179.3	1,305.4	4,445.0
	10	Information and communications	53.7	7.2	2,016.9	575.0	459.1	3,705.2	2,088.0	287.0	604.6	8,559.3	1,311.8	9,741.8
	11	Public administration	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	12	Services	276.6	46.7	9,839.3	5,847.4	2,531.7	8,377.2	4,328.1	2,290.2	6,811.4	9,190.5	4,742.6	24,178.2
	13	Activities not elsewhere classified	53.4	11.0	988.0	897.9	117.2	687.5	172.6	148.1	480.9	139.9	39.3	1,260.4
	Sub-total		6,745.5	406.9	199,239.5	32,331.5	18,094.7	28,751.0	11,506.2	12,835.6	26,668.3	24,170.7	11,592.0	94,477.1
Gross Value Added	Consumption expenditure outside households		81.6	37.2	3,653.9	1,245.0	308.8	2,284.2	1,073.2	313.3	900.0	930.4	434.3	3,773.9
	Compensation of employees		1,493.9	174.0	45,418.5	21,261.5	2,591.0	37,218.4	11,062.0	4,671.8	15,584.7	10,500.2	14,323.7	101,439.9
	Operating surplus		2,810.8	77.2	14,918.0	1,706.7	1,302.6	14,811.2	8,985.8	31,773.5	3,207.5	7,226.2	0.0	15,521.1
	Consumption of fixed capital		1,997.2	93.3	29,252.6	2,337.0	6,084.0	8,486.2	2,600.4	27,161.0	6,343.1	5,525.1	13,315.2	27,646.0
	Indirect taxes		513.5	59.6	10,524.3	2,246.8	1,031.6	3,974.9	746.7	3,986.7	2,454.8	1,622.5	73.9	8,350.4
	(Less) Current subsidies		-754.9	-0.3	-197.5	-292.0	-233.4	-47.0	-526.1	-23.0	-149.1	-0.7	0.0	-1,012.6
	Sub-total		6,142.1	441.0	103,569.7	28,505.1	11,084.6	66,727.9	23,942.1	67,883.3	28,341.1	25,803.8	28,147.1	155,718.7
Domestic production			12,887.6	847.9	302,809.2	60,836.6	29,179.3	95,478.9	35,448.2	80,718.9	55,009.4	49,974.5	39,739.0	250,195.8

(billion Yen)

		Final demand								h	i	j	k	l
13	Sub-Total	a	b	c	d	e	f	g	Sub-total					
0.0	14,230.7	145.5	7,402.1	0.0	193.4	193.4	7,934.4	146.1	8,080.5	22,311.1	-2,807.9	-5,735.5	-880.2	12,887.6
1.7	23,162.0	-5.4	-5.7	0.0	-6.5	9.5	-8.1	51.0	42.9	23,204.9	-20,293.3	-522.8	-1,540.9	847.9
322.9	238,497.0	3,288.9	102,050.4	15.7	47,231.7	325.0	152,911.8	73,738.1	226,649.9	465,146.9	-64,252.8	-86,452.3	-11,632.6	302,809.2
0.0	3,699.4	0.0	0.0	0.0	57,137.2	0.0	57,137.2	0.0	57,137.2	60,836.6	0.0	0.0	0.0	60,836.6
27.8	20,506.3	9.4	8,797.6	-212.4	0.0	0.0	8,594.6	81.7	8,676.3	29,182.6	-3.3	0.0	0.0	29,179.3
0.0	189.5	0.0	1,102.7	0.0	291.2	0.0	1,394.0	-1,033.7	360.2	549.7	-189.5	95,118.7	0.0	95,478.9
13.4	17,327.8	0.3	17,774.6	0.0	0.0	0.0	17,774.9	1,744.9	19,519.8	36,847.6	-1,399.4	0.0	0.0	35,448.2
147.8	11,884.1	0.0	65,914.1	22.0	2,853.7	0.0	68,789.8	46.9	68,836.6	80,720.7	-1.8	0.0	0.0	80,718.9
432.8	25,402.7	326.1	12,595.5	49.6	0.0	0.0	12,971.2	5,814.2	18,785.4	44,188.1	-3,609.4	0.0	14,430.7	55,009.4
359.7	29,769.4	207.1	14,584.1	40.0	9,439.8	-24.6	24,246.3	795.0	25,041.4	54,810.7	-2,321.7	-2,289.4	-225.2	49,974.5
1,157.3	1,157.3	0.0	1,167.7	37,414.0	0.0	0.0	38,581.7	0.0	38,581.7	39,739.0	0.0	0.0	0.0	39,739.0
297.3	78,757.3	11,083.5	74,222.7	68,200.4	19,792.4	0.0	173,299.1	5,379.8	178,678.9	257,436.2	-7,238.4	-1.0	-1.0	250,195.8
0.0	4,996.3	0.0	10.6	0.0	0.0	0.0	10.6	5.4	16.0	5,012.3	-50.6	-117.8	-150.9	4,693.0
2,760.6	469,579.7	15,055.5	305,616.4	105,529.3	136,932.9	503.3	563,637.4	86,769.4	650,406.8	1,119,986.5	-102,168.1	0.0	0.0	1,017,818.4

19.6	15,055.5
59.4	265,799.2
1,564.8	103,905.3
230.1	131,071.1
82.1	35,668.0
-0.0	-3,260.4
1,932.4	548,238.7
4,693.0	1,017,818.4

Column Codes are:

a : Consumption expenditure outside households
b : Consumption expenditure (private)
c : Consumption expenditure of general government
d : Gross domestic fixed capital formation
e : Increase in stocks
f : Total Domestic final demand
g : Exports
h : Total demand
i : (Less) Imports
j : (Less) Trade margin
k : (Less) Trade margin
l : Domestic production

Notes:

1. Component figures may not add up to the total because of rounding.
2. Treatment of consumption tax is the same as Table Valued at Producer's Price

2. Total Supply and Growth

Total supply of Domestic production and Imports reached 1119.9865 trillion yen, of which domestic production is 1017.8184 trillion yen (90.9% of the total supply value) and imports is 102.1681 trillion yen (9.1% of the total supply value). Compared to 2011, the composition of Total supply for Domestic production decreased by 1.0 points.

With respect to growth from 2011 levels, Domestic production increased by 8.3% and Imports increased by 22.9%, resulting in a 9.5% increase of Total supply.

Chart 1-2 Composition of the Total Supply

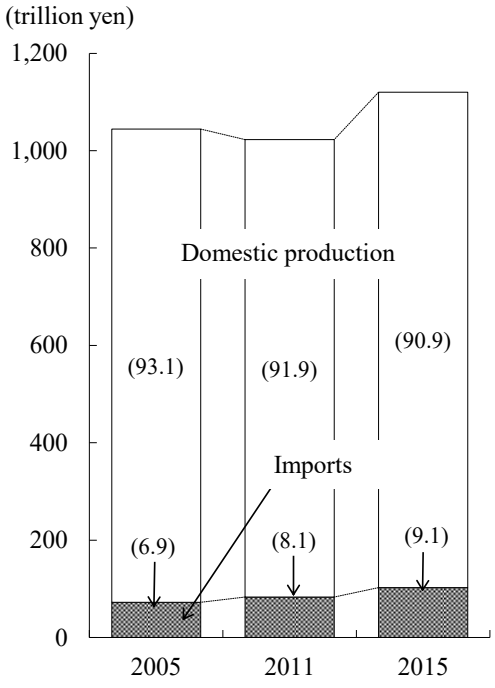


Chart 1-3 Growth of the Total Supply

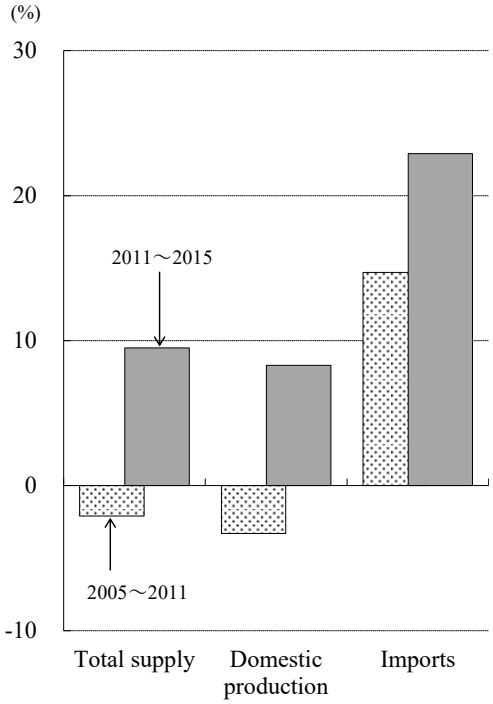


Table 1-3 Composition and Growth of the Total Supply

	Value(billion yen)			Distribution ratio(%)			Growth rate(%)	
	2005	2011	2015	2005	2011	2015	2005～2011	2011～2015
Total supply	1,044,497.8	1,022,832.9	1,119,986.5	100.0	100.0	100.0	△ 2.1	9.5
Domestic production	972,014.6	939,674.9	1,017,818.4	93.1	91.9	90.9	△ 3.3	8.3
Imports	72,483.1	83,158.1	102,168.1	6.9	8.1	9.1	14.7	22.9

3. Composition and Growth of Total Demand

Total demand for 2015 was 1119.9865 trillion yen with the breakdown figures as 469.5797 trillion yen (41.9%) for Intermediate demand, 563.6374 trillion yen (50.3%) for Domestic final demand (of which, 426.2012 trillion yen is Consumption (38.1%) and 137.4362 trillion yen is Investments (12.3%)), and 86.7694 trillion yen for Exports (7.7%).

As compared to 2011, Intermediate demand decreased by 3.3 points, Domestic final consumption increased by 2.6 points (of which, Consumption decreased by 0.2 points and Investments increased by 2.9 points), and Exports increased by 0.6 points.

With respect to growth from the 2011 levels, Total demand, Intermediate demand, and Exports increased by 9.5%, 1.5%, and 19.7%, respectively. For Domestic final demand, Consumption and Investments increased by 8.9% and 43.0%, respectively, resulting in a 15.6% increase in Domestic final demand.

Chart 1-4 Composition of Total Demand

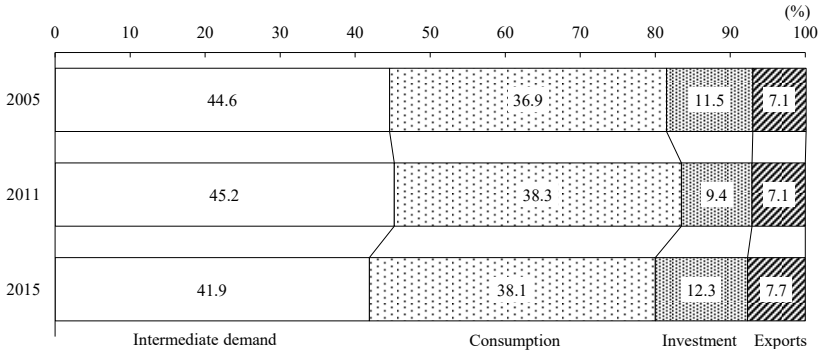


Chart 1-5 Growth of Total Demand

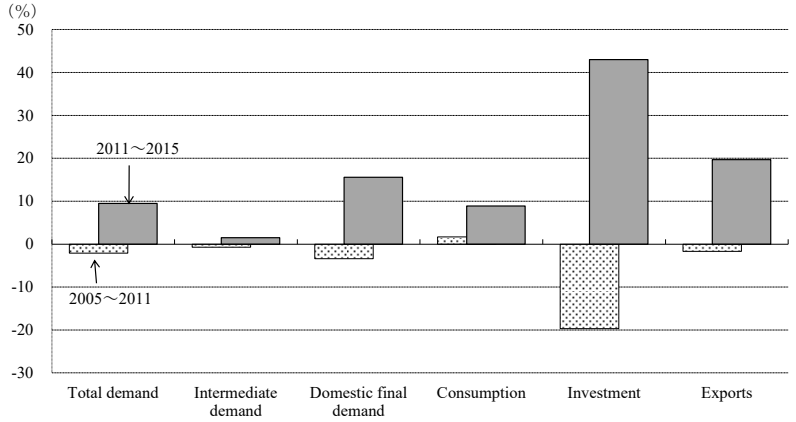


Table 1-4 Composition and Growth of Total Demand

	Value(billion yen)			Distribution ratio(%)			Growth rate(%)	
	2005	2011	2015	2005	2011	2015	2005～2011	2011～2015
Total demand	1,044,497.8	1,022,832.9	1,119,986.5	100.0	100.0	100.0	△ 2.1	9.5
Intermediate demand	466,140.6	462,769.6	469,579.7	44.6	45.2	41.9	△ 0.7	1.5
Final demand	578,357.2	560,063.3	650,406.8	55.4	54.8	58.1	△ 3.2	16.1
Domestic final demand	504,588.5	487,555.4	563,637.4	48.3	47.7	50.3	△ 3.4	15.6
Consumption	384,928.0	391,421.4	426,201.2	36.9	38.3	38.1	1.7	8.9
Investment	119,660.5	96,134.0	137,436.2	11.5	9.4	12.3	△ 19.7	43.0
Exports	73,768.7	72,507.9	86,769.4	7.1	7.1	7.7	△ 1.7	19.7
Domestic demand	970,729.1	950,325.0	1,033,217.1	92.9	92.9	92.3	△ 2.1	8.7

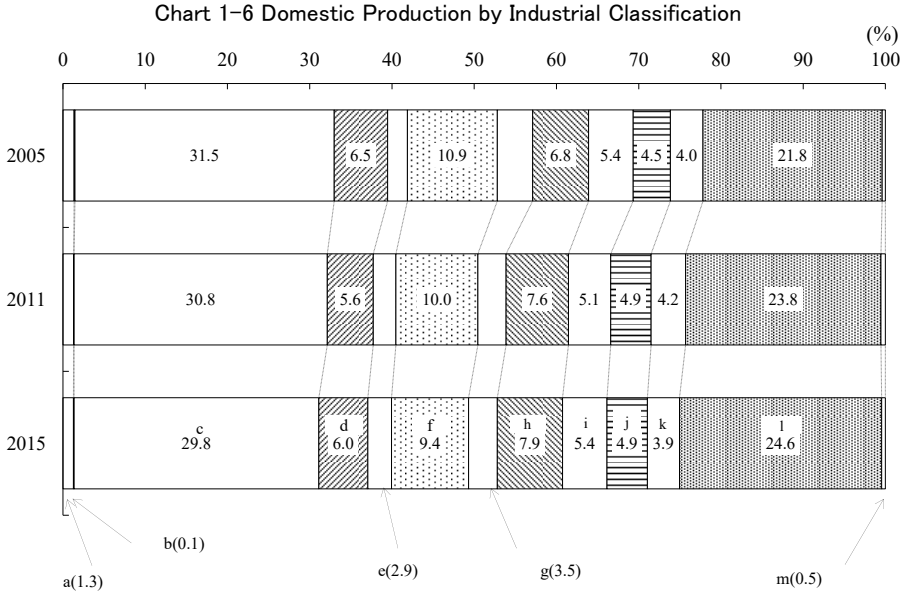
4. Domestic Production by Industry

Observing Domestic production in 2015 by the 13 sectors, the Manufacturing sector has the highest ratio (29.8%, 302.8092 trillion yen), followed by Services (24.6%, 250.1958 trillion yen), Commerce (9.4%, 95.4789 trillion yen), and Real Estate (7.9%, 80.7189 trillion yen).

When comparing this to the 2011 levels, industries that increased include Service (0.8 points), Construction (0.4 points), Real Estate (0.3 points), and Transport and postal services (0.3 points); sectors that decreased include Manufacturing (1.0 points), Commerce (0.6 points), and Public administration (0.3 points).

Observing industries as primary, secondary, or tertiary industries, the primary industries accounted for 1.3% of Domestic production (12.8876 trillion yen), the secondary industries accounted for 35.8% (364.4937 trillion yen), and the tertiary industries accounted for 62.9% (640.4371 trillion yen), indicating that there continues to be an increasing trend in the component ratio of tertiary industries.

Chart 1-6 Domestic Production by Industrial Classification



Notes: Primary industries : a
Secondary industries: b, c, d,
Tertiary industries : e, f, g, h, i, j, k, l, m

Table 1-5 Domestic Production by Industrial Classification

	Domestic production(billion yen)			Distribution ratio(%)		
	2005	2011	2015	2005	2011	2015
Total	972,014.6	939,674.9	1,017,818.4	100.0	100.0	100.0
a Agriculture, forestry and fishery	13,154.6	12,036.0	12,887.6	1.4	1.3	1.3
b Mining	1,008.4	760.0	847.9	0.1	0.1	0.1
c Manufacturing	306,322.4	289,241.3	302,809.2	31.5	30.8	29.8
d Construction	63,237.3	52,514.5	60,836.6	6.5	5.6	6.0
e Electricity, gas and water supply	23,235.7	25,754.7	29,179.3	2.4	2.7	2.9
f Commerce	106,274.5	93,655.8	95,478.9	10.9	10.0	9.4
g Finance and insurance	41,751.5	32,332.3	35,448.2	4.3	3.4	3.5
h Real estate	66,205.9	71,187.5	80,718.9	6.8	7.6	7.9
i Transport and postal services	52,661.4	48,257.6	55,009.4	5.4	5.1	5.4
j Information and communications	43,940.2	46,136.7	49,974.5	4.5	4.9	4.9
k Public administration	38,537.9	39,405.2	39,739.0	4.0	4.2	3.9
l Services	211,716.8	223,383.1	250,195.8	21.8	23.8	24.6
m Activities not elsewhere classified	3,968.0	5,010.3	4,693.0	0.4	0.5	0.5
Primary industries	13,154.6	12,036.0	12,887.6	1.4	1.3	1.3
Secondary industries	370,568.1	342,515.7	364,493.7	38.1	36.5	35.8
Tertiary industries	588,291.9	585,123.2	640,437.1	60.5	62.3	62.9

Reference: Domestic Production Trend

Domestic production for the year 2015 increased to 1,017.8184 trillion yen, 8.3% higher than the 2011 figures. This increase translates to an average annual growth rate of 2.0% for the four years from 2011 to 2015.

In terms of the historical development of the average annual growth rate, growth from 1990 showed a slower increase, and turned to a decrease of 0.6% from 2005 to 2011. However, the growth shifted to an increase of 2.0% from 2011 to 2015.

Chart 1-7 Domestic Production Trend

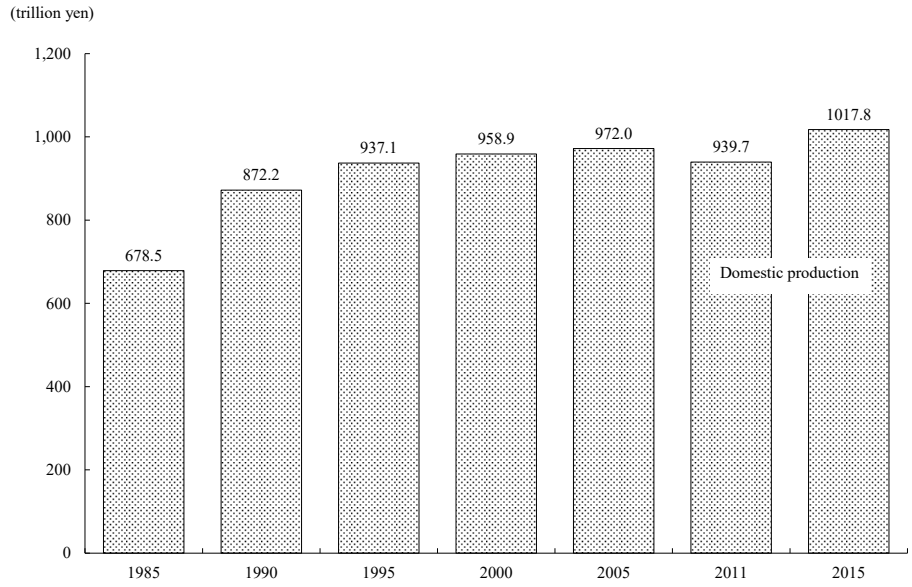


Table 1-6 Domestic Production Trend

	1985	1990	1995	2000	2005	2011	2015
Domestic production(billion yen)	678,544.1	872,212.2	937,100.6	958,886.5	972,014.6	939,674.9	1,017,818.4

Table 1-7 Annual Change of Domestic Production

	1980～1985	1985～1990	1990～1995	1995～2000	2000～2005	2005～2011	2011～2015
Growth rate(%)	22.3	28.5	7.4	2.3	1.4	-3.3	8.3
Average annual growth rate(%)	4.1	5.1	1.4	0.5	0.3	-0.6	2.0

5. Growth of Domestic Production by Industry

Observing domestic production in 2015 based on the 37-sector classification table, Commerce has the highest domestic production with 95.4789 trillion yen, followed by Real estate (80.7189 trillion yen), Business services (74.7886 trillion yen), and Medical, health care and welfare (67.5868 trillion yen).

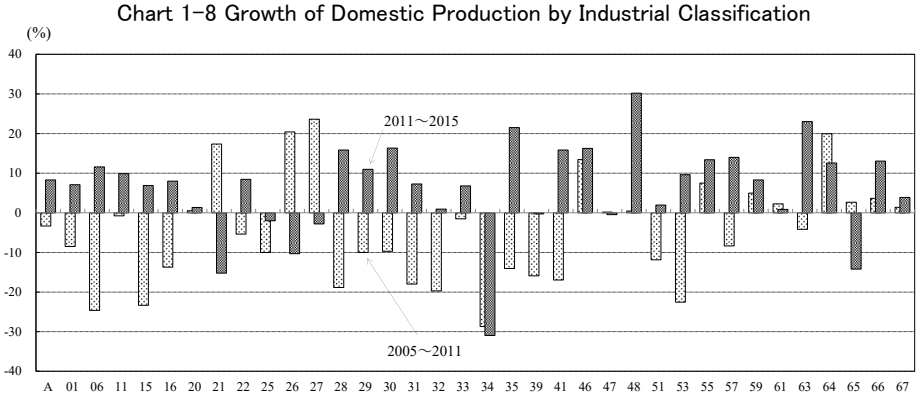
With regard to growth as compared to 2011, domestic production is increasing in sectors such as Waste management service (30.2%), Education and research (23.0%), Transportation equipment (21.5%), while decreasing in sectors such as Information and communication electronics equipment (31.0%), Petroleum and coal products (15.2%) and Membership-based associations, n.e.c. (14.2%).

Observing the extent of the impacts (contribution level) of each industry on the domestic production growth rate (8.3% increase), Transportation equipment (1.04%) and Real estate (1.01%) have been contributing to the increase.

Table 1-8 Growth of Domestic Production by Industrial Classification

	Domestic production(billion yen)			Growth rate (%)		Contributions to changes (%)
	2005	2011	2015	2005～2011	2011～2015	
A Total	972,014.6	939,674.9	1,017,818.4	△ 3.3	8.3	
01 Agriculture, forestry and fishery	13,154.6	12,036.0	12,887.6	△ 8.5	7.1	0.09
06 Mining	1,008.4	760.0	847.9	△ 24.6	11.6	0.01
11 Beverages and Foods	35,140.9	34,877.7	38,348.6	△ 0.7	9.9	0.37
15 Textile products	4,374.8	3,354.1	3,586.0	△ 23.3	6.9	0.02
16 Pulp, paper and wooden products	12,829.6	11,068.5	11,953.6	△ 13.7	8.0	0.09
20 Chemical products	27,487.0	27,633.9	28,006.9	0.5	1.3	0.04
21 Petroleum and coal products	16,920.2	19,857.2	16,834.6	17.4	△ 15.2	△ 0.32
22 Plastic products and rubber products	13,636.1	12,906.1	13,998.0	△ 5.4	8.5	0.12
25 Ceramic, stone and clay products	7,155.9	6,439.5	6,310.6	△ 10.0	△ 2.0	△ 0.01
26 Iron and steel	25,314.0	30,487.2	27,342.7	20.4	△ 10.3	△ 0.33
27 Non-ferrous metals	7,330.0	9,061.9	8,806.6	23.6	△ 2.8	△ 0.03
28 Metal products	12,484.4	10,131.3	11,736.9	△ 18.8	15.8	0.17
29 General-purpose machinery	10,474.7	9,424.8	10,458.6	△ 10.0	11.0	0.11
30 Production machinery	15,905.4	14,359.1	16,704.9	△ 9.7	16.3	0.25
31 Business oriented machinery	7,843.6	6,433.8	6,903.3	△ 18.0	7.3	0.05
32 Electronic components	16,701.5	13,408.4	13,536.1	△ 19.7	1.0	0.01
33 Electrical machinery	15,272.4	15,042.7	16,062.7	△ 1.5	6.8	0.11
34 Information and communication electronics equipment	11,081.6	7,902.4	5,456.5	△ 28.7	△ 31.0	△ 0.26
35 Transportation equipment	53,016.3	45,571.5	55,377.7	△ 14.0	21.5	1.04
39 Miscellaneous manufacturing products	11,836.2	9,956.2	9,929.3	△ 15.9	△ 0.3	△ 0.00
41 Construction	63,237.3	52,514.5	60,836.6	△ 17.0	15.8	0.89
46 Electricity, gas and heat supply	18,677.2	21,187.3	24,633.7	13.4	16.3	0.37
47 Water supply	4,558.5	4,567.4	4,545.6	0.2	△ 0.5	△ 0.00
48 Waste management service	3,748.0	3,765.1	4,902.0	0.5	30.2	0.12
51 Commerce	106,274.5	93,655.8	95,478.9	△ 11.9	1.9	0.19
53 Finance and insurance	41,751.5	32,332.3	35,448.2	△ 22.6	9.6	0.33
55 Real estate	66,205.9	71,187.5	80,718.9	7.5	13.4	1.01
57 Transport and postal services	52,661.4	48,257.6	55,009.4	△ 8.4	14.0	0.72
59 Information and communications	43,940.2	46,136.7	49,974.5	5.0	8.3	0.41
61 Public administration	38,537.9	39,405.2	39,739.0	2.3	0.8	0.04
63 Education and research	37,041.6	35,500.4	43,680.5	△ 4.2	23.0	0.87
64 Medical, health care and welfare	50,046.6	60,036.7	67,586.8	20.0	12.6	0.80
65 Membership-based associations, n.e.c.	5,030.6	5,165.6	4,431.8	2.7	△ 14.2	△ 0.08
66 Business services	63,827.9	66,161.2	74,788.6	3.7	13.0	0.92
67 Personal services	52,022.0	52,754.1	54,806.1	1.4	3.9	0.22

Chart 1-8 Growth of Domestic Production by Industrial Classification



6. Intermediate Inputs and Gross Value Added

Of the 1017.8184 trillion yen worth of domestic production in 2015, the expenditure (intermediate input) of goods and services required for production accounted for 469.5797 trillion yen (ratio for intermediate input of 46.1%), while the gross value added, which increased through production activities, amounted to 548.2387 trillion yen (ratio for gross value added of 53.9%).

The ratio of intermediate input decreased by 3.1 points from that of 2011.

Chart 1-9 Intermediate Inputs and Gross Value Added

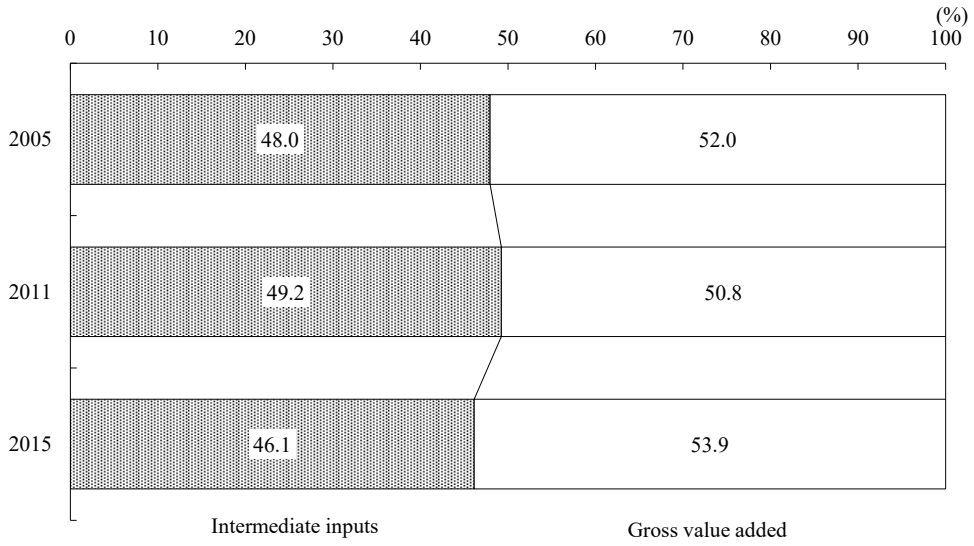


Table 1-9 Intermediate Inputs and Gross Value Added

	Value (billion yen)			Distribution ratio (%)			Growth rate(%)	
	2005	2011	2015	2005	2011	2015	2005～2011	2011～2015
Domestic production	972,014.6	939,674.9	1,017,818.4	100.0	100.0	100.0	△ 3.3	8.3
Intermediate inputs	466,140.6	462,769.6	469,579.7	48.0	49.2	46.1	△ 0.7	1.5
Gross value added	505,874.1	476,905.3	548,238.7	52.0	50.8	53.9	△ 5.7	15.0

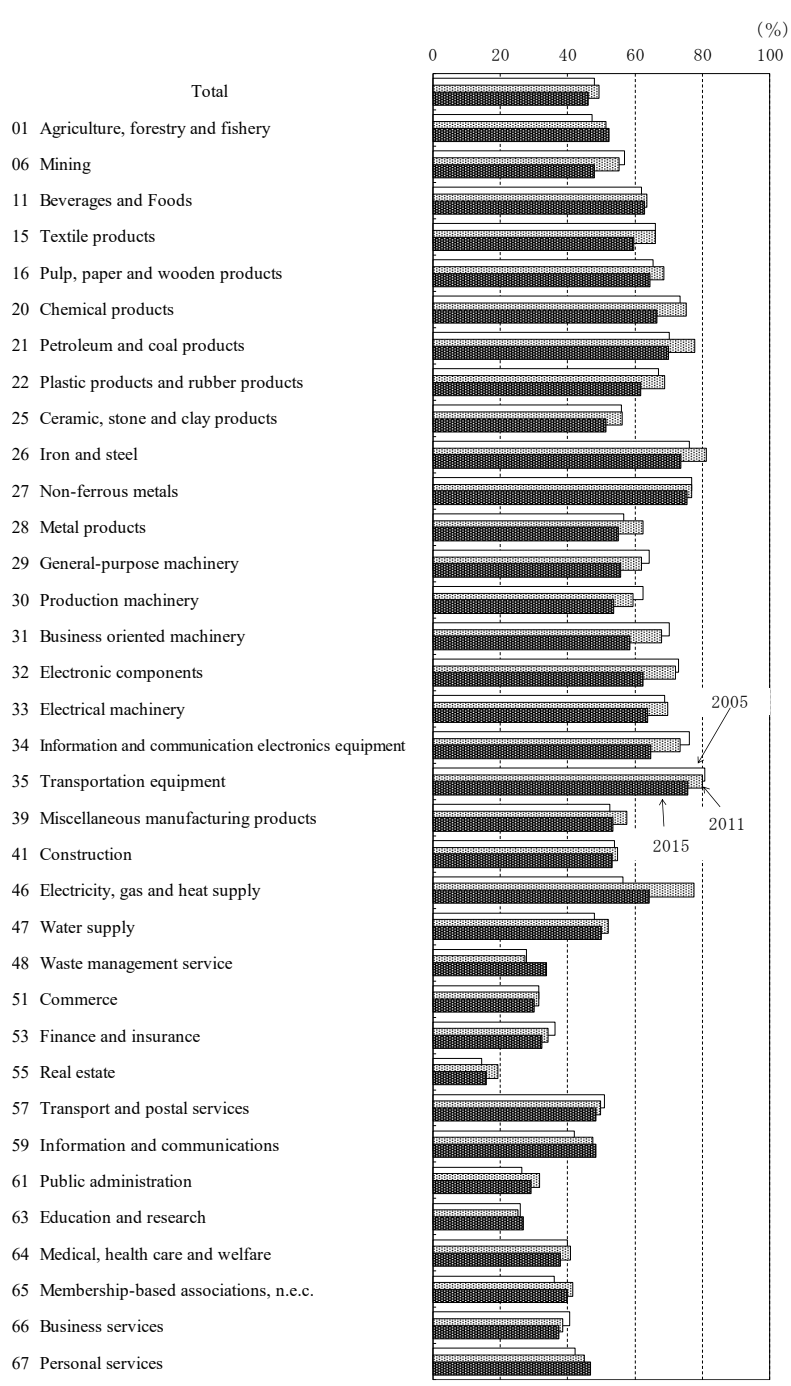
7. Intermediate Input Ratio by Industry

Observing the intermediate input ratio by industry based on the 37-sector classification table 2015, shows high trends in the manufacturing sector, including Transportation equipment (75.8%), Non-ferrous metals (75.4%), and Iron and steel (73.6%). For sectors other than manufacturing, Electricity, gas and heat supply (64.2%), Construction (53.1%), and Agriculture, forestry and fishery (52.3%) also show high trends.

However, Real estate (15.9%) and Education and research (26.8%) remain low.

When compared to 2011, the range of decrease in Electricity, gas and heat supply (down by 13.3 points) is the largest, followed by Electronic components (9.6 points), and Business oriented machinery (9.5 points).

Chart 1-10 Intermediate Input Ratio by Industry



(%)

	2005	2011	2015
Total	48.0	49.2	46.1
01 Agriculture, forestry and fishery	47.2	51.5	52.3
06 Mining	57.0	55.2	48.0
11 Beverages and Foods	61.9	63.5	62.8
15 Textile products	66.1	66.1	59.7
16 Pulp, paper and wooden products	65.3	68.7	64.3
20 Chemical products	73.3	75.3	66.5
21 Petroleum and coal products	70.2	77.7	69.9
22 Plastic products and rubber products	66.9	68.9	61.7
25 Ceramic, stone and clay products	56.1	56.1	51.5
26 Iron and steel	76.1	81.3	73.6
27 Non-ferrous metals	76.9	76.7	75.4
28 Metal products	56.7	62.4	55.1
29 General-purpose machinery	64.2	61.9	55.8
30 Production machinery	62.4	59.3	53.8
31 Business oriented machinery	70.2	68.0	58.5
32 Electronic components	73.0	71.9	62.3
33 Electrical machinery	68.8	69.6	63.7
34 Information and communication electronics equipment	76.1	73.3	64.7
35 Transportation equipment	80.7	80.1	75.8
39 Miscellaneous manufacturing products	52.6	57.4	53.5
41 Construction	53.8	54.8	53.1
46 Electricity, gas and heat supply	56.5	77.5	64.2
47 Water supply	48.0	52.0	50.1
48 Waste management service	27.7	27.3	33.8
51 Commerce	31.5	31.5	30.1
53 Finance and insurance	36.3	34.2	32.5
55 Real estate	14.6	19.4	15.9
57 Transport and postal services	51.0	49.7	48.5
59 Information and communications	41.9	47.4	48.4
61 Public administration	26.3	31.7	29.2
63 Education and research	25.9	25.2	26.8
64 Medical, health care and welfare	40.0	40.8	38.0
65 Membership-based associations, n.e.c.	36.0	41.4	40.0
66 Business services	40.6	38.6	37.5
67 Personal services	42.2	45.0	46.8

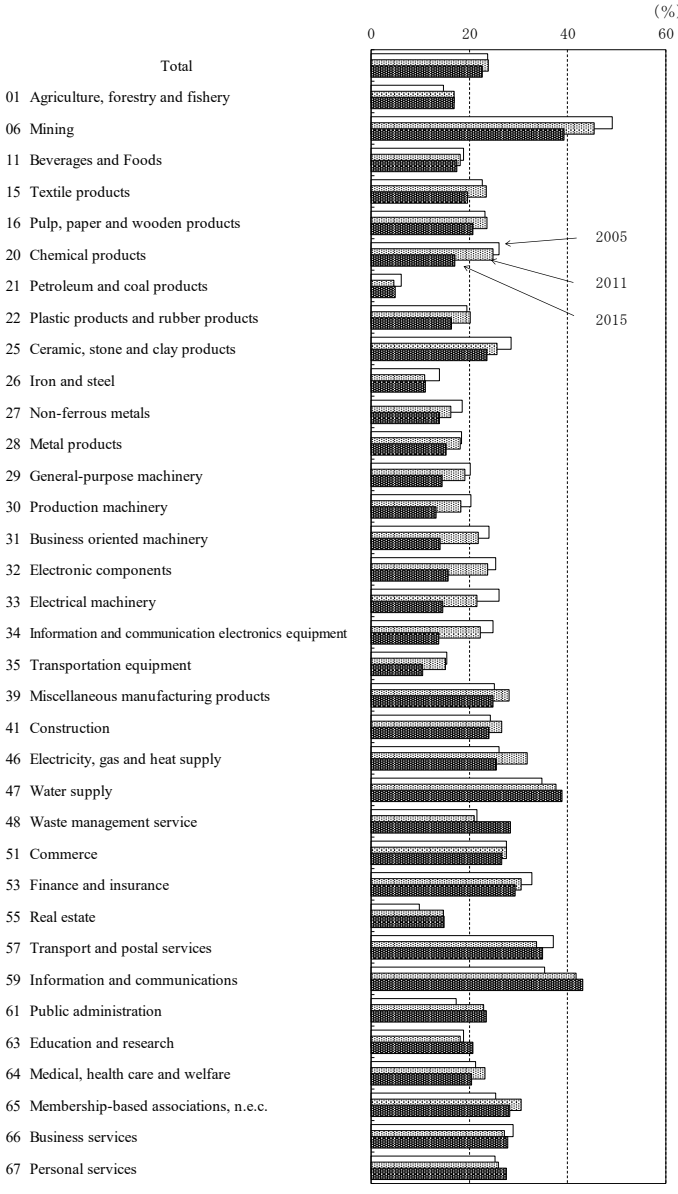
8. Intermediate Input Ratios of Services by Industry

Observing the intermediate input ratios of services by industry in 2015 after dividing intermediate inputs into “goods” and “services,” the intermediate input ratio for the industry total is 22.7%, indicating a decrease of 1.2 points as compared to 2011 (23.9%).

In terms of the 37-sector classification table, Information and communications has the highest intermediate input ratio at 43.1%, followed by Mining at 39.3%, Water supply at 38.9%, Transport and postal services at 34.9%, and Finance and Insurance at 29.3%. On the other hand, the intermediate input ratio is lowest for Petroleum and coal products at 4.8%, followed by Transportation equipment at 10.5%, Iron and steel at 11.0%, Production machinery at 13.2%, and Information and communication electronics equipment at 13.7%.

Compared to 2011, sectors that increased include Waste management service (by 7.3 points), Education and research (by 2.6 points), and Personal services (by 1.6 points), while those that decreased include Information and communication electronics equipment (by 8.5 points), Electronic components (by 8.1 points), Chemical products (by 7.8 points), and Business oriented machinery (by 7.8 points).

Chart 1-11 Intermediate Input Ratios of Services by Industry



(%)

	2005	2011	2015
Total	23.8	23.9	22.7
01 Agriculture, forestry and fishery	14.7	16.8	16.9
06 Mining	49.1	45.4	39.3
11 Beverages and Foods	18.8	18.1	17.4
15 Textile products	22.6	23.4	19.6
16 Pulp, paper and wooden products	23.2	23.5	20.7
20 Chemical products	26.0	24.8	17.0
21 Petroleum and coal products	6.1	4.6	4.8
22 Plastic products and rubber products	19.5	20.1	16.3
25 Ceramic, stone and clay products	28.5	25.7	23.6
26 Iron and steel	13.8	10.9	11.0
27 Non-ferrous metals	18.5	16.1	13.9
28 Metal products	18.3	18.1	15.3
29 General-purpose machinery	20.2	19.0	14.4
30 Production machinery	20.3	18.3	13.2
31 Business oriented machinery	23.9	21.8	14.0
32 Electronic components	25.4	23.7	15.6
33 Electrical machinery	26.1	21.6	14.5
34 Information and communication electronics equipment	24.7	22.2	13.7
35 Transportation equipment	15.3	15.0	10.5
39 Miscellaneous manufacturing products	25.1	28.1	24.7
41 Construction	24.3	26.5	23.9
46 Electricity, gas and heat supply	26.0	31.7	25.5
47 Water supply	34.8	37.6	38.9
48 Waste management service	21.5	21.0	28.3
51 Commerce	27.6	27.6	26.6
53 Finance and insurance	32.7	30.6	29.3
55 Real estate	9.7	14.7	14.8
57 Transport and postal services	37.0	33.7	34.9
59 Information and communications	35.2	41.8	43.1
61 Public administration	17.3	22.9	23.4
63 Education and research	18.8	18.2	20.8
64 Medical, health care and welfare	21.3	23.1	20.4
65 Membership-based associations, n.e.c.	25.4	30.5	28.2
66 Business services	28.8	27.1	27.9
67 Personal services	25.2	25.9	27.5

9. Composition and Growth Rates of Gross Value Added

The amount of gross value added for 2015 is 548.2387 trillion yen. This figure breaks down into 265.7992 trillion yen for Compensation of employees (48.5%), 131.0711 trillion yen for Consumption of fixed capital (23.9%), 103.9053 trillion yen for Operating surplus (19.0%), and 35.6680 trillion yen for Indirect taxes (6.5%).

Compared to 2011, the amount of gross value added as a whole increased by 15.0%.

Observing the contribution ratio in relation to this growth rate (15.0% increase), Consumption of fixed capital (6.58%) and Compensation of employees (3.60%) etc. were the factors in the increase.

Chart 1-12 Composition of Gross Value Added

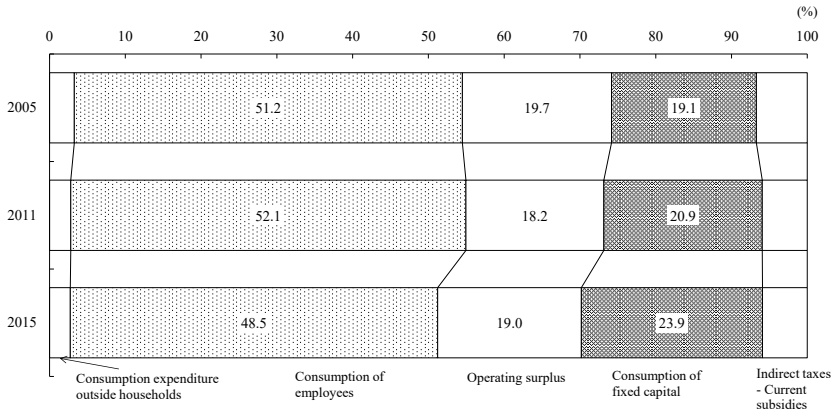


Chart 1-13 Growth of Gross Value Added

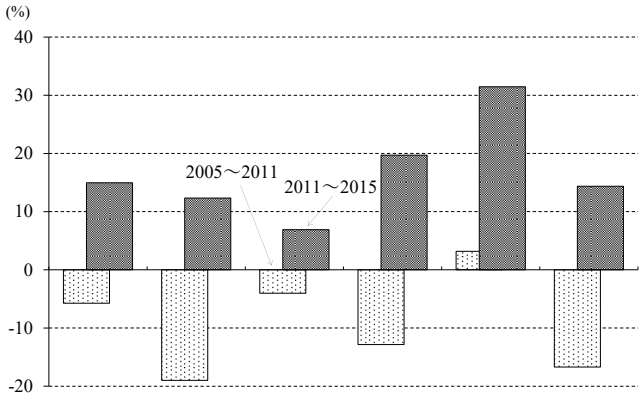


Table 1-10 Composition and Rate of Gross Value Added

	Value (billion yen)			Distribution ratio (%)			Growth rate (%)		Contributions to changes (%)
	2005	2011	2015	2005	2011	2015	2005～2011	2011～2015	2011～2015
Total of gross value added	505,874.1	476,905.3	548,238.7	100.0	100.0	100.0	△ 5.7	15.0	
Consumption expenditure outside households	16,543.8	13,402.1	15,055.5	3.3	2.8	2.7	△ 19.0	12.3	0.35
Consumption of employees	259,076.4	248,652.2	265,799.2	51.2	52.1	48.5	△ 4.0	6.9	3.60
Operating surplus	99,584.6	86,806.1	103,905.3	19.7	18.2	19.0	△ 12.8	19.7	3.59
Consumption of fixed capital	96,644.8	99,708.0	131,071.1	19.1	20.9	23.9	3.2	31.5	6.58
Indirect taxes	37,531.1	31,934.1	35,668.0	7.4	6.7	6.5	△ 14.9	11.7	0.78
(less) Current subsidies	△ 3,506.7	△ 3,597.2	△ 3,260.4	△ 0.7	△ 0.8	△ 0.6	2.6	△ 9.4	0.07

10. Composition and Growth of Final Demand

The amount of final demand for 2015 was 650.4068 trillion yen. This figure breaks down into 305.6164 trillion yen for Consumption expenditures (private) (47.0%), followed by 136.9329 trillion yen for Gross domestic fixed capital formation (21.1%), 105.5293 trillion yen for Consumption expenditures of the general government (16.2%), and 86.7694 trillion yen for Exports (13.3%).

As compared to 2011, the final demand as a whole increased by 16.1%.

Observing the level of contribution to this growth rate (an increase of 16.1%), both Gross domestic fixed capital formation (7.46%) and Consumption expenditures (private) (4.24%) contributed.

Chart 1-14 Composition of Final Demand

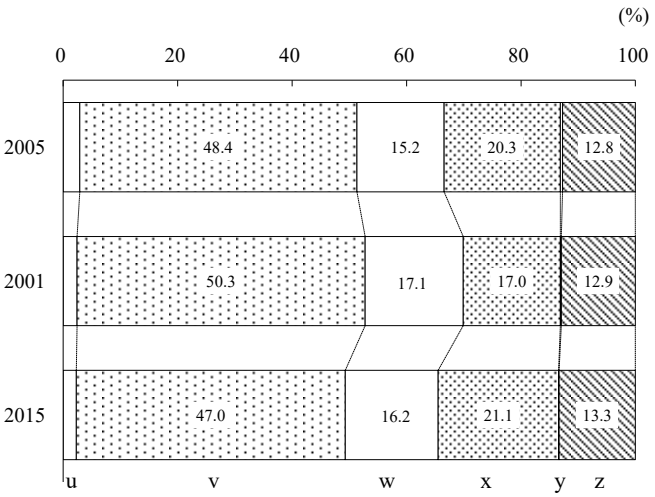


Chart 1-15 Growth of Final Demand

Table 1-11 Composition and Growth of Final Demand

	Value (billion yen)			Distribution ratio (%)			Growth rate (%)		Contributions to changes (%)
	2005	2011	2015	2005	2001	2015	2005～2011	2011～2015	2011～2015
A Total final demand	578,357.2	560,063.3	650,406.8	100.0	100.0	100.0	△ 3.2	16.1	
u Consumption expenditure outside households	16,802.7	13,633.3	15,055.5	2.9	2.4	2.3	△18.9	10.4	0.25
v Consumption expenditure (private)	279,979.0	281,880.6	305,616.4	48.4	50.3	47.0	0.7	8.4	4.24
w Consumption expenditure of general government	88,146.3	95,907.6	105,529.3	15.2	17.1	16.2	8.8	10.0	1.72
x Gross domestic fixed capital formation	117,591.1	95,154.2	136,932.9	20.3	17.0	21.1	△19.1	43.9	7.46
y Increase in stocks	2,069.4	979.8	503.3	0.4	0.2	0.1	△52.7	△48.6	△ 0.09
z Exports	73,768.7	72,507.9	86,769.4	12.8	12.9	13.3	△ 1.7	19.7	2.55

11. Growth Rate and Contribution of Exports by Commodity

The amount of exports in 2015 was 86.7694 trillion yen, and when looking at the composition of exports by commodity classification as shown in the 37-sector classification, Transportation equipment accounted for the highest (21.3%) for the whole commodity export industry, followed by Electronic components (7.8%), Production machinery (7.4%), and Chemical products (7.3%).

As compared to 2011, the sectors in which exports increased consisted of Transportation equipment (0.9 points), Chemical products (0.5 points) and Electrical machinery (0.4 points), while those that decreased include Information and communication electronics equipment (1.3 points) and Production machinery (1.1 points).

When looking at the growth rate in relation to 2011, Agriculture, forestry and fishery (124.2%) and Beverages and foods (101.8% increase) both rose, while Information and communication electronics equipment (30.4%) and Petroleum and coal products (5.9% decrease) dropped.

When looking at the level of contribution to the overall growth rate of industries (19.7% increase), Transportation equipment (5.09%) and Chemical products (1.95%) both contributed.

Chart 1-16 Growth of Exports by Commodity Classification

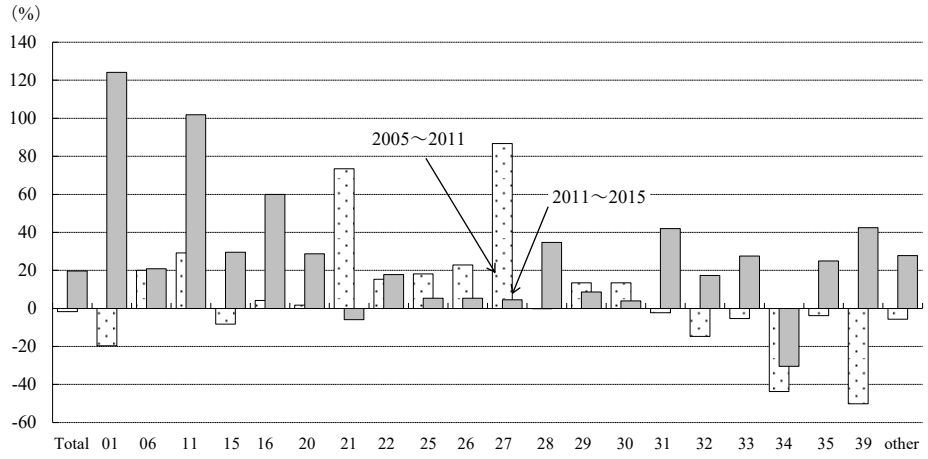


Table 1-12 Values, Distribution Ratio, Growth, and Contribution to Changes of Imports by Commodity Classification

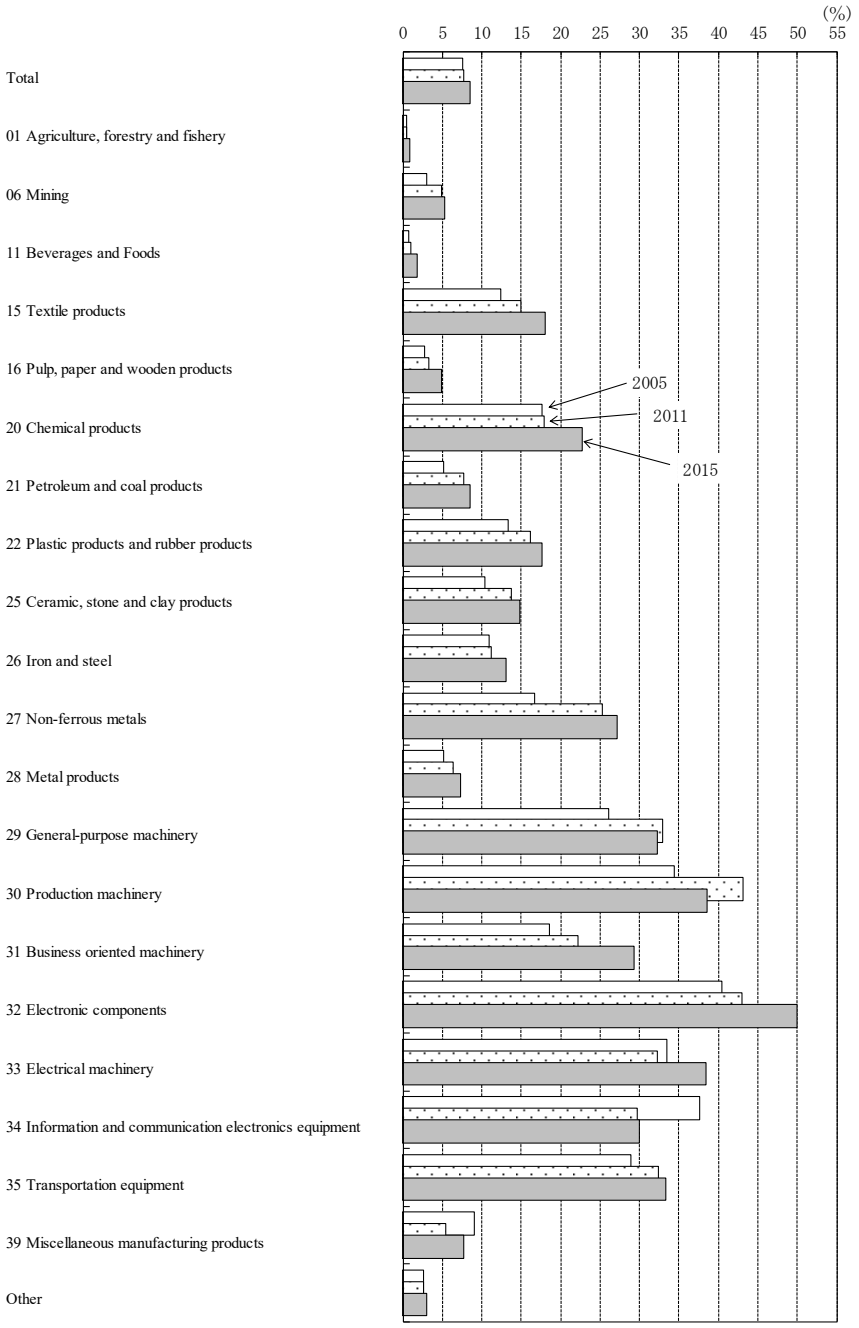
	Value (billion yen)			Distribution ratio (%)			Growth rate (%)		Contributions to changes (%)
	2005	2011	2015	2005	2011	2015	2005～2011	2011～2015	2011～2015
Total	73,768.7	72,507.9	86,769.4	100.0	100.0	100.0	△ 1.7	19.7	
01 Agriculture, forestry and fishery	62.5	50.2	112.6	0.1	0.1	0.1	△ 19.6	124.2	0.09
06 Mining	31.1	37.3	45.1	0.0	0.1	0.1	20.0	20.8	0.01
11 Beverages and Foods	265.1	342.3	690.9	0.4	0.5	0.8	29.2	101.8	0.48
15 Textile products	545.7	500.3	647.8	0.7	0.7	0.7	△ 8.3	29.5	0.20
16 Pulp, paper and wooden products	354.7	369.5	591.2	0.5	0.5	0.7	4.2	60.0	0.31
20 Chemical products	4,850.3	4,933.3	6,349.5	6.6	6.8	7.3	1.7	28.7	1.95
21 Petroleum and coal products	884.8	1,534.6	1,444.2	1.2	2.1	1.7	73.4	△ 5.9	△ 0.12
22 Plastic products and rubber products	1,812.8	2,090.6	2,462.7	2.5	2.9	2.8	15.3	17.8	0.51
25 Ceramic, stone and clay products	748.5	884.9	931.6	1.0	1.2	1.1	18.2	5.3	0.06
26 Iron and steel	2,772.7	3,403.8	3,584.6	3.8	4.7	4.1	22.8	5.3	0.25
27 Non-ferrous metals	1,227.4	2,291.4	2,394.1	1.7	3.2	2.8	86.7	4.5	0.14
28 Metal products	642.1	641.2	863.6	0.9	0.9	1.0	△ 0.1	34.7	0.31
29 General-purpose machinery	2,738.3	3,104.3	3,372.3	3.7	4.3	3.9	13.4	8.6	0.37
30 Production machinery	5,464.8	6,199.4	6,445.9	7.4	8.5	7.4	13.4	4.0	0.34
31 Business oriented machinery	1,461.4	1,427.2	2,027.4	2.0	2.0	2.3	△ 2.3	42.0	0.83
32 Electronic components	6,760.8	5,766.5	6,762.6	9.2	8.0	7.8	△ 14.7	17.3	1.37
33 Electrical machinery	5,116.3	4,843.1	6,173.9	6.9	6.7	7.1	△ 5.3	27.5	1.84
34 Information and communication electronics equipment	4,164.9	2,346.7	1,632.4	5.6	3.2	1.9	△ 43.7	△ 30.4	△ 0.99
35 Transportation equipment	15,359.2	14,777.9	18,471.9	20.8	20.4	21.3	△ 3.8	25.0	5.09
39 Miscellaneous manufacturing products	1,079.4	537.7	766.1	1.5	0.7	0.9	△ 50.2	42.5	0.32
Other	17,426.2	16,425.5	20,999.2	23.6	22.7	24.2	△ 5.7	27.8	6.31

12. Commodity Export Ratios of Domestic Products

When looking at the commodity export ratios of domestic production in 2015 as categorized in the 37-sector classification table, Electronic components had the highest ratio at 50.0%, followed by Production machinery (38.6%), Electrical machinery (38.4%), Transportation equipment (33.4%), and General-purpose machinery (32.2%).

Compared to 2011, the ratios that increased consist of Business oriented machinery (7.2 points), Electronic components (7.0 points), and Electrical machinery (6.2 points), while ratios that decreased consist of Production machinery (4.6 points) and General-purpose machinery (0.7 points).

Chart 1-17 Commodity Export Ratios of Domestic Products



(%)

	2005	2011	2015
Total	7.6	7.7	8.5
01 Agriculture, forestry and fishery	0.5	0.4	0.9
06 Mining	3.1	4.9	5.3
11 Beverages and Foods	0.8	1.0	1.8
15 Textile products	12.5	14.9	18.1
16 Pulp, paper and wooden products	2.8	3.3	4.9
20 Chemical products	17.6	17.9	22.7
21 Petroleum and coal products	5.2	7.7	8.6
22 Plastic products and rubber products	13.3	16.2	17.6
25 Ceramic, stone and clay products	10.5	13.7	14.8
26 Iron and steel	11.0	11.2	13.1
27 Non-ferrous metals	16.7	25.3	27.2
28 Metal products	5.1	6.3	7.4
29 General-purpose machinery	26.1	32.9	32.2
30 Production machinery	34.4	43.2	38.6
31 Business oriented machinery	18.6	22.2	29.4
32 Electronic components	40.5	43.0	50.0
33 Electrical machinery	33.5	32.2	38.4
34 Information and communication electronics equipment	37.6	29.7	29.9
35 Transportation equipment	29.0	32.4	33.4
39 Miscellaneous manufacturing products	9.1	5.4	7.7
Other	2.7	2.6	3.0

13. Growth Rate and Contribution of Imports by Commodity

Imports in 2015 amounted to 102.1681 trillion yen, and by Commodity classification in the 37-sector classification table, the composition of imports for Mining has the highest ratio (19.9%), followed by Beverages and Foods (7.6%), Chemical products (7.6%), Information and communication electronics equipment (6.3%), and Textile products (5.0%).

As compared to 2011, increases in the import ratio were seen in Transportation equipment (1.6 points) and Electrical machinery (1.0 points), while decreases in the import ratio were seen in Mining (8.1 points) and Petroleum and coal products (1.2 points).

When looking at the growth rates of imports by commodity in relation to 2011, there are increases in Transportation equipment (88.3%), Production machinery (61.0%) and Metal products (60.6%), while decreases were seen in Mining (12.9%), Petroleum and coal products (11.2%), and Iron and steel (6.7%).

When looking at the level of contribution to the growth rate (22.9%) of the industry total, both Transportation equipment (2.59%) and Chemical products (2.38%) contributed.

Chart 1-18 Growth of Imports by Commodity Classification

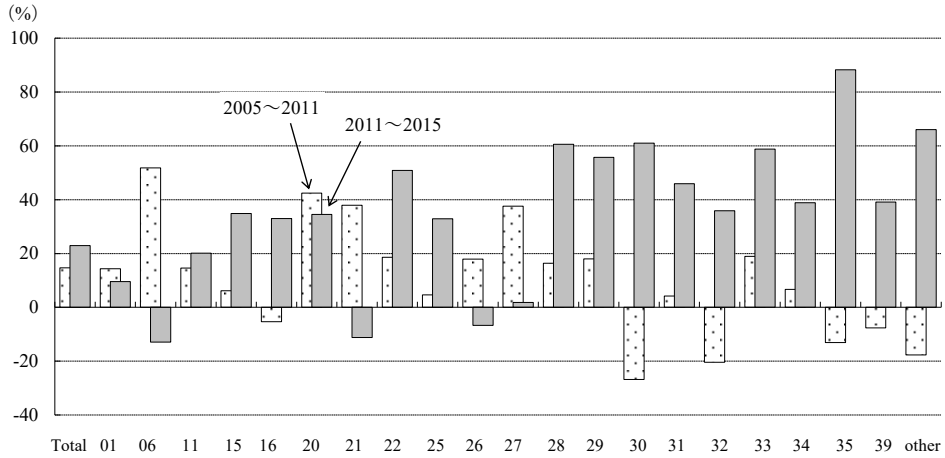


Table 1-13 Values, Distribution Ratio, Growth, and Contribution to Changes of Imports by Commodity Classification

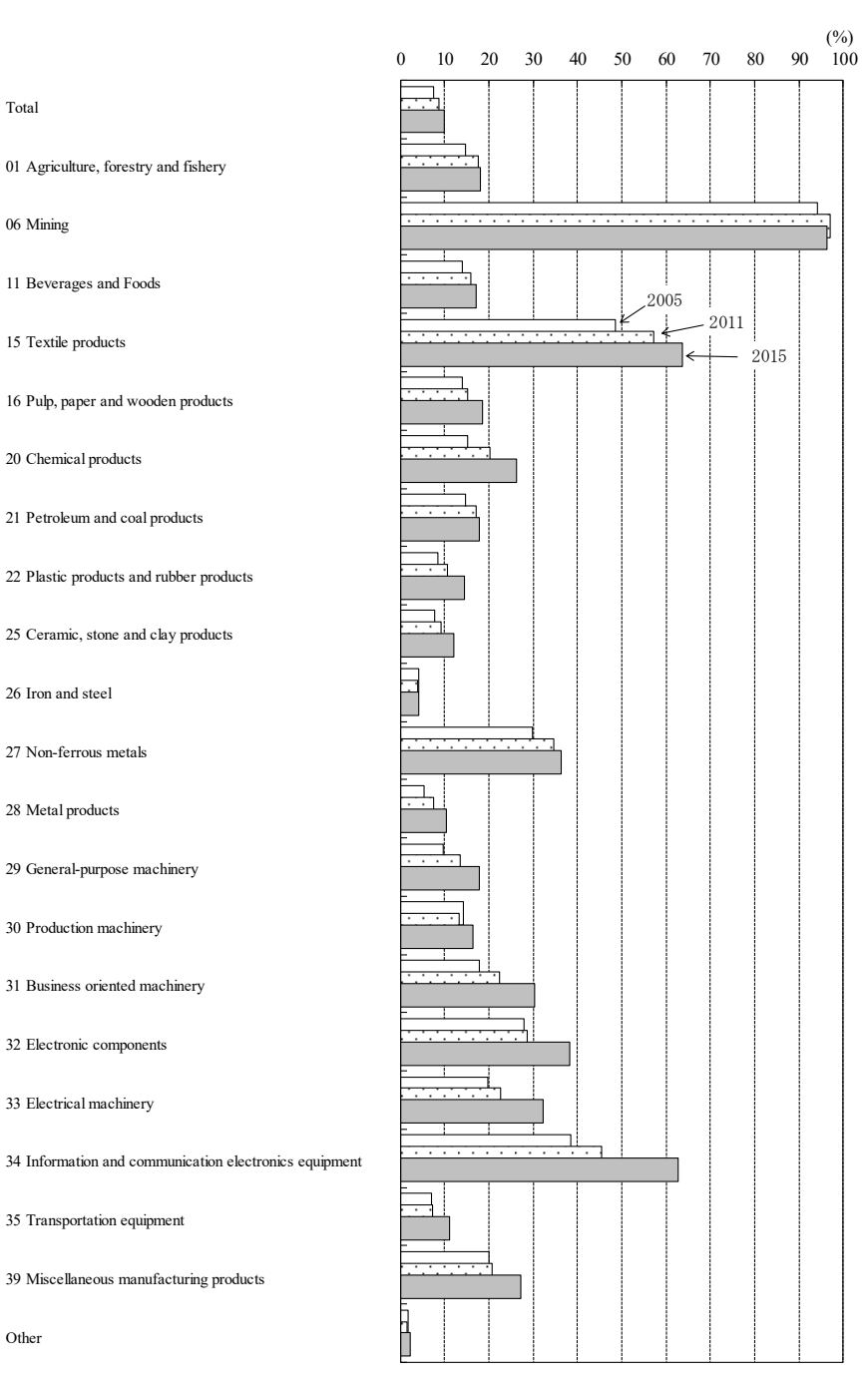
	Value (billion yen)			Distribution ratio (%)			Growth rate (%)		Contributions to changes (%)
	2005	2011	2015	2005	2011	2015	2005～2011	2011～2015	2011～2015
Total	72,483.1	83,158.1	102,168.1	100.0	100.0	100.0	14.7	22.9	
01 Agriculture, forestry and fishery	2,241.8	2,562.8	2,807.9	3.1	3.1	2.7	14.3	9.6	0.29
06 Mining	15,360.2	23,309.6	20,293.3	21.2	28.0	19.9	51.8	△ 12.9	△ 3.63
11 Beverages and Foods	5,667.3	6,497.4	7,806.3	7.8	7.8	7.6	14.6	20.1	1.57
15 Textile products	3,598.6	3,819.9	5,154.5	5.0	4.6	5.0	6.2	34.9	1.60
16 Pulp, paper and wooden products	2,037.4	1,929.3	2,566.4	2.8	2.3	2.5	△ 5.3	33.0	0.77
20 Chemical products	4,035.0	5,744.1	7,726.1	5.6	6.9	7.6	42.4	34.5	2.38
21 Petroleum and coal products	2,738.6	3,775.7	3,351.7	3.8	4.5	3.3	37.9	△ 11.2	△ 0.51
22 Plastic products and rubber products	1,091.0	1,294.2	1,953.0	1.5	1.6	1.9	18.6	50.9	0.79
25 Ceramic, stone and clay products	532.6	556.9	740.2	0.7	0.7	0.7	4.6	32.9	0.22
26 Iron and steel	949.5	1,119.7	1,045.2	1.3	1.3	1.0	17.9	△ 6.7	△ 0.09
27 Non-ferrous metals	2,607.0	3,588.0	3,653.7	3.6	4.3	3.6	37.6	1.8	0.08
28 Metal products	665.6	774.9	1,244.9	0.9	0.9	1.2	16.4	60.6	0.57
29 General-purpose machinery	837.6	988.2	1,538.7	1.2	1.2	1.5	18.0	55.7	0.66
30 Production machinery	1,718.6	1,258.6	2,026.2	2.4	1.5	2.0	△ 26.8	61.0	0.92
31 Business oriented machinery	1,387.3	1,445.6	2,109.1	1.9	1.7	2.1	4.2	45.9	0.80
32 Electronic components	3,859.6	3,072.1	4,174.2	5.3	3.7	4.1	△ 20.4	35.9	1.33
33 Electrical machinery	2,501.0	2,973.6	4,723.0	3.5	3.6	4.6	18.9	58.8	2.10
34 Information and communication electronics equipment	4,326.7	4,616.3	6,412.4	6.0	5.6	6.3	6.7	38.9	2.16
35 Transportation equipment	2,804.7	2,437.2	4,588.5	3.9	2.9	4.5	△ 13.1	88.3	2.59
39 Miscellaneous manufacturing products	2,677.3	2,472.6	3,438.8	3.7	3.0	3.4	△ 7.6	39.1	1.16
Other	10,845.8	8,921.6	14,814.1	15.0	10.7	14.5	△ 17.7	66.0	7.09

14. Commodity Import Ratios of Domestic Demand

As categorized in the 37-sector classification table, the commodity import ratios of domestic demand in 2015 showed the highest for Mining (96.2%), followed by Textile products (63.7%), Information and communication electronics equipment (62.6%), and Electronic components (38.1%).

As compared to 2011, commodity import ratios of domestic demand increased for all the sectors including Information and communication electronics equipment (17.2 points), Electrical machinery (9.7 points), Electronic components (9.4 points), and Business oriented machinery (7.8 points), except for Mining (0.8 points decrease).

Chart 1-19 Commodity Import Ratios of Domestic Demand



(%)

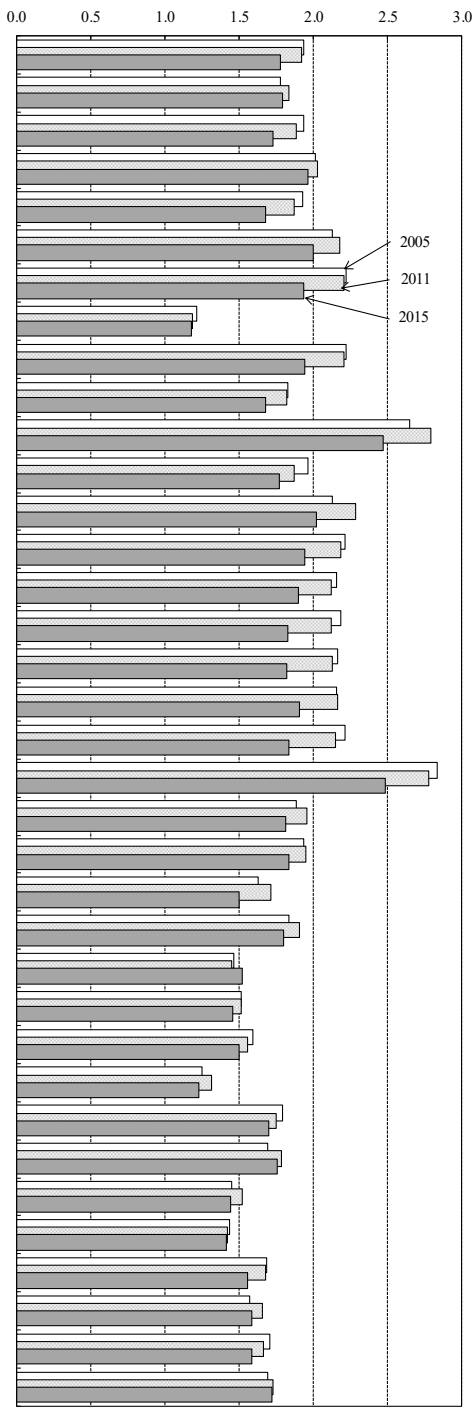
	2005	2011	2015
Total	7.5	8.8	9.9
01 Agriculture, forestry and fishery	14.6	17.6	18.0
06 Mining	94.0	97.0	96.2
11 Beverages and Foods	14.0	15.8	17.2
15 Textile products	48.4	57.2	63.7
16 Pulp, paper and wooden products	14.0	15.3	18.4
20 Chemical products	15.1	20.2	26.3
21 Petroleum and coal products	14.6	17.1	17.9
22 Plastic products and rubber products	8.4	10.7	14.5
25 Ceramic, stone and clay products	7.7	9.1	12.1
26 Iron and steel	4.0	4.0	4.2
27 Non-ferrous metals	29.9	34.6	36.3
28 Metal products	5.3	7.5	10.3
29 General-purpose machinery	9.8	13.5	17.8
30 Production machinery	14.1	13.4	16.5
31 Business oriented machinery	17.9	22.4	30.2
32 Electronic components	28.0	28.7	38.1
33 Electrical machinery	19.8	22.6	32.3
34 Information and communication electronics equipment	38.5	45.4	62.6
35 Transportation equipment	6.9	7.3	11.1
39 Miscellaneous manufacturing products	19.9	20.8	27.3
Other	1.7	1.4	2.1

15. Intensity of Product Impact

As inferred from the 2015 inverse coefficient matrix in the 37-sector classification table, a unit of increase in final demand has produced 1.7746 times the impact on the average of all industries. By industry, there are sectors in the manufacturing industry that has a larger impact than the average, including Transportation equipment (2.4822 times), Iron and steel (2.4718 times), and Metal products (2.0193 times). Outside of the manufacturing industry, Construction (1.8365 times) receives a high impact.

Compared to 2011, the intensity of product impact by industry in 2015 shows decreases in all sectors excluding Waste Management Services.

Chart 1-20 Intensity of Product Impact



	2005	2011	2015
Total	1.9347	1.9183	1.7746
01 Agriculture, forestry and fishery	1.7806	1.8345	1.7928
06 Mining	1.9374	1.8882	1.7290
11 Beverages and Foods	2.0130	2.0271	1.9652
15 Textile products	1.9308	1.8691	1.6750
16 Pulp, paper and wooden products	2.1254	2.1800	2.0001
20 Chemical products	2.2219	2.2024	1.9325
21 Petroleum and coal products	1.2169	1.1838	1.1783
22 Plastic products and rubber products	2.2225	2.2035	1.9446
25 Ceramic, stone and clay products	1.8287	1.8232	1.6786
26 Iron and steel	2.6453	2.7875	2.4718
27 Non-ferrous metals	1.9647	1.8712	1.7735
28 Metal products	2.1273	2.2862	2.0193
29 General-purpose machinery	2.2150	2.1828	1.9442
30 Production machinery	2.1574	2.1198	1.9015
31 Business oriented machinery	2.1875	2.1234	1.8284
32 Electronic components	2.1640	2.1306	1.8214
33 Electrical machinery	2.1579	2.1641	1.9076
34 Information and communication electronics equipment	2.2144	2.1515	1.8371
35 Transportation equipment	2.8323	2.7755	2.4822
39 Miscellaneous manufacturing products	1.8869	1.9578	1.8105
41 Construction	1.9366	1.9463	1.8365
46 Electricity, gas and heat supply	1.6300	1.7139	1.4999
47 Water supply	1.8369	1.9056	1.7984
48 Waste management service	1.4640	1.4490	1.5189
51 Commerce	1.5130	1.5104	1.4566
53 Finance and insurance	1.5921	1.5568	1.4962
55 Real estate	1.2499	1.3171	1.2307
57 Transport and postal services	1.7940	1.7486	1.6967
59 Information and communications	1.6925	1.7860	1.7528
61 Public administration	1.4527	1.5216	1.4436
63 Education and research	1.4363	1.4195	1.4142
64 Medical, health care and welfare	1.6844	1.6746	1.5601
65 Membership-based associations, n.e.c.	1.5742	1.6538	1.5860
66 Business services	1.7046	1.6668	1.5861
67 Personal services	1.6886	1.7290	1.7205

16. Final Demand and Induced Domestic Production

When looking at ratios by final demand item to determine which final demand items induced the domestic production of 1017.8184 trillion yen in 2015 (Domestic production inducement distribution ratios by Individual final demand items), Consumption expenditure (private) (43.8%) was the highest, followed by Gross domestic fixed capital formation (21.8%), Exports (16.6%), and Consumption expenditure of general government (15.4%).

As compared to 2011, the Domestic products inducement distribution ratios attributable to Gross domestic fixed capital formation rose by 3.4 points.

When looking at the extent to which a unit of change in the final demand induced domestic production (Domestic Production Inducement Coefficients by Individual final demand items), Exports exerted the greatest influence (1.9516 times), followed by Consumption expenditures outside households (1.6202 times) and Gross domestic fixed capital formation (1.6189 times).

As compared to 2011, the Domestic products inducement coefficients decreased for all individual final demand items.

Chart 1-21 Domestic Production Inducement Distribution Ratios by Individual Final Demand Items

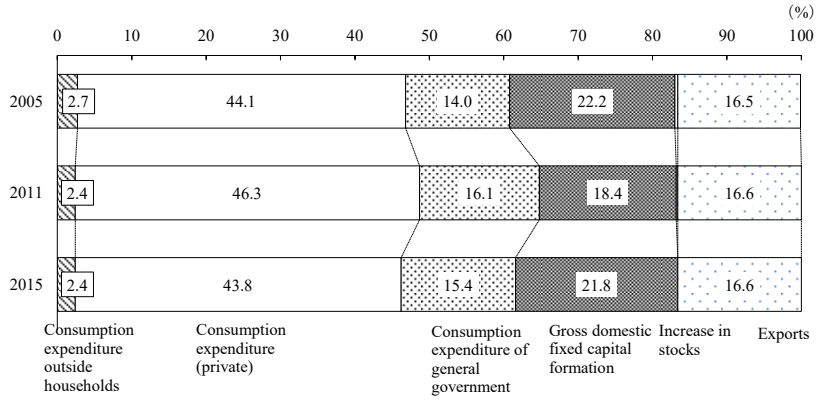


Chart 1-22 Domestic Production Inducement Coefficients by Individual Final Demand Items

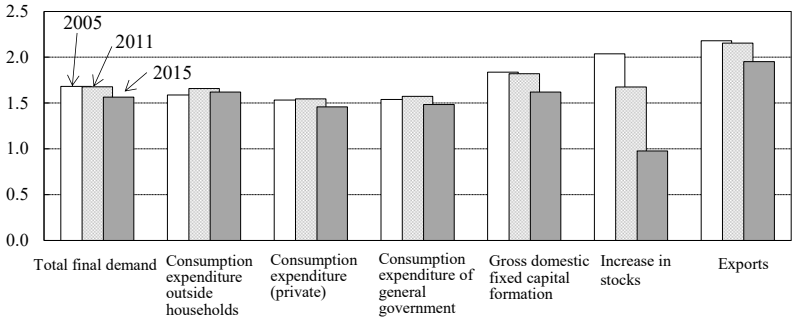


Table 1-14 Domestic Production Induced, Domestic Production Inducement Distribution Ratios and Domestic Production Inducement Coefficients by Individual Final Demand Items

	Domestic Production Induced (billion yen)			Domestic Production Inducement Distribution Ratio(%)			Domestic Production Inducement Coefficient		
	2005	2011	2015	2005	2011	2015	2005	2011	2015
Total final demand	972,014.6	939,674.9	1,017,818.4	100.0	100.0	100.0	1.6806	1.6778	1.5649
Consumption expenditure outside households	26,663.1	22,601.4	24,392.8	2.7	2.4	2.4	1.5868	1.6578	1.6202
Consumption expenditure (private)	428,740.0	435,256.4	445,402.6	44.1	46.3	43.8	1.5313	1.5441	1.4574
Consumption expenditure of general government	135,696.2	150,826.3	156,504.7	14.0	16.1	15.4	1.5394	1.5726	1.4830
Gross domestic fixed capital formation	215,934.1	173,163.3	221,685.8	22.2	18.4	21.8	1.8363	1.8198	1.6189
Increase in stocks	4,216.8	1,641.1	491.6	0.4	0.2	0.0	2.0376	1.6749	0.9769
Exports	160,764.5	156,186.5	169,340.9	16.5	16.6	16.6	2.1793	2.1541	1.9516

17. Final Demand and Induced Gross Value Added

When looking at ratios by final demand item to determine which final demand items induced the gross value added of 548.2387 trillion yen in 2015 (Gross value added inducement ratio by Individual final demand items), Consumption expenditure (private) (47.4%) was the highest, followed by Gross domestic fixed capital formation (20.0%), Consumption expenditure of general government (17.7%), and Exports (12.6%).

As compared to 2011, the inducement impact of Gross domestic fixed capital formation and Exports on the gross value added increased.

In so far as the impact of the induced gross value added attributable to a unit of change in the final demand is concerned (Gross value added inducement coefficients by final demand item), Consumption expenditure of general government was the greatest influence at 0.9171 times, followed by Consumption expenditure outside households at 0.8564 points and Consumption expenditure (private) at 0.8495 points.

As compared to 2011, the gross value-added inducement coefficients became smaller for all individual final demand items.

Chart 1-23 Gross Value Added Inducement Ratio by Individual Final Demand Items

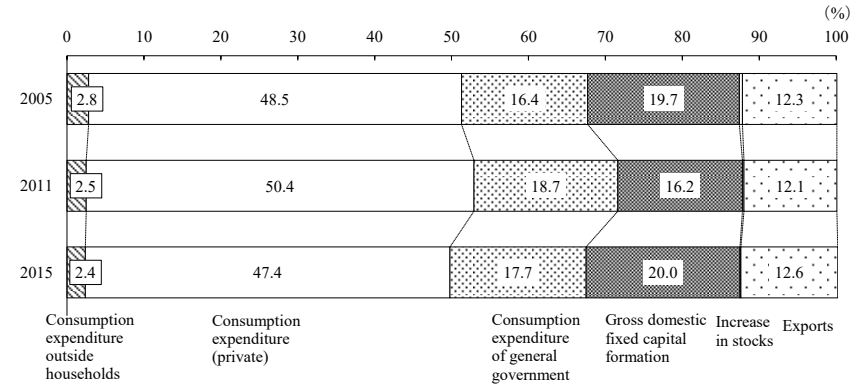


Chart 1-24 Gross Value Added Inducement Coefficients by The Final Demand Items

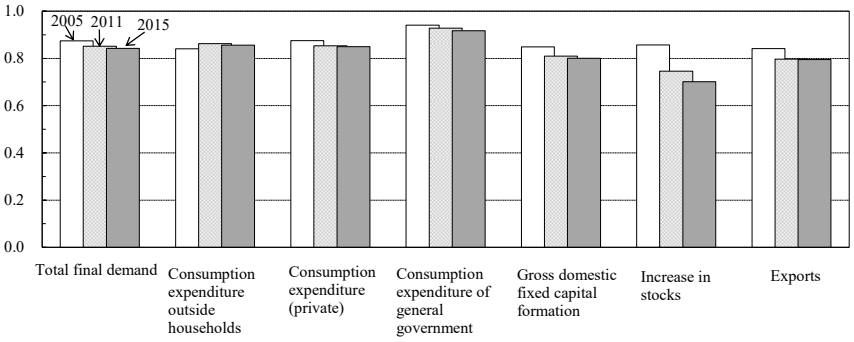


Table 1-15 Gross Value Added Induced, Gross Value Added Inducement Distribution Ratios and Gross Value Added Inducement Coefficients by Individual Final Demand Items

	Gross Value Added Induced (billion yen)			Gross Value Added Inducement Distribution Ratio(%)			Gross Value Added Inducement Coefficient		
	2005	2011	2015	2005	2011	2015	2005	2011	2015
Total final demand	505,874.1	476,905.3	548,238.7	100.0	100.0	100.0	0.8747	0.8515	0.8429
Consumption expenditure outside households	14,128.4	11,763.9	12,893.7	2.8	2.5	2.4	0.8408	0.8629	0.8564
Consumption expenditure (private)	245,155.6	240,548.4	259,620.0	48.5	50.4	47.4	0.8756	0.8534	0.8495
Consumption expenditure of general government	82,904.2	89,018.0	96,784.8	16.4	18.7	17.7	0.9405	0.9282	0.9171
Gross domestic fixed capital formation	99,813.1	77,064.6	109,582.7	19.7	16.2	20.0	0.8488	0.8099	0.8003
Increase in stocks	1,773.1	731.3	352.8	0.4	0.2	0.1	0.8568	0.7464	0.7010
Exports	62,099.6	57,778.9	69,004.6	12.3	12.1	12.6	0.8418	0.7969	0.7953

18 Final Demand and Induced Imports

When looking at ratios by final demand item to determine which final demand items induced the value of Imports of 102.1681 trillion yen in 2015 (Import inducement distribution ratios by Individual final demand items), Consumption expenditures (private) was the highest (45.0%), followed by Gross domestic fixed capital formation (26.8%), Exports (17.4%) and Consumption expenditures of the general government (8.6%).

As compared to 2011, the Imports inducement distribution ratios attributable to Consumption expenditure of general government, and Gross domestic fixed capital formation increased.

The impact of the Imports inducement coefficients attributable to a unit of change in the final demand (Imports inducement coefficients by Individual final demand items) may be traced back to such sectors as Increase in stocks (0.2990 points), followed by Exports (0.2047 points) and Gross domestic fixed capital formation (0.1997 points).

As compared to 2011, the imports inducement coefficients increased for all individual final demand items.

Chart 1-25 Import Inducement Distribution Ratios by Individual Final Demand Items

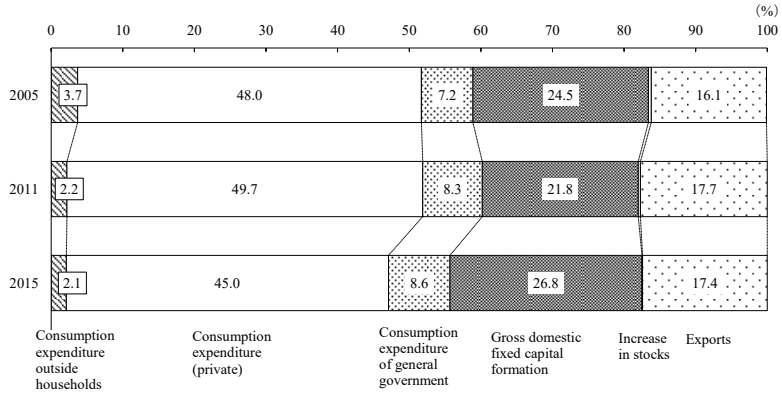


Chart 1-26 Imports Inducement Coefficients by Individual Final Demand Items

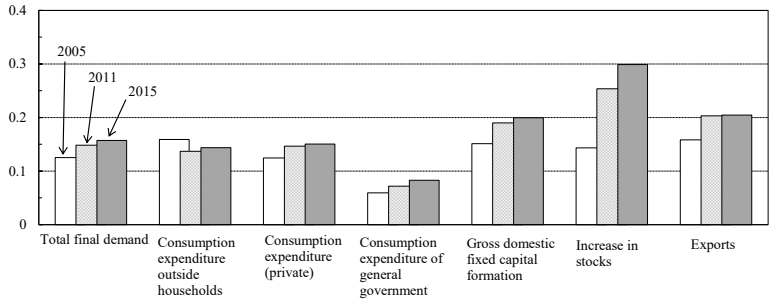


Table 1-16 Import Induced, Import Inducement Distribution Ratios and Imports Inducement Coefficients by Individual Final Demand Items

	Imports Induced (billion yen)			Imports Inducement Distribution Ratio(%)			Imports Inducement Coefficient		
	2005	2011	2015	2005	2011	2015	2005	2011	2015
Total final demand	72,483.1	83,158.1	102,168.1	100.0	100.0	100.0	0.1253	0.1485	0.1571
Consumption expenditure outside households	2,674.3	1,869.4	2,161.8	3.7	2.2	2.1	0.1592	0.1371	0.1436
Consumption expenditure (private)	34,823.4	41,332.2	45,996.4	48.0	49.7	45.0	0.1244	0.1466	0.1505
Consumption expenditure of general government	5,242.1	6,889.5	8,744.5	7.2	8.3	8.6	0.0595	0.0718	0.0829
Gross domestic fixed capital formation	17,778.0	18,089.5	27,350.2	24.5	21.8	26.8	0.1512	0.1901	0.1997
Increase in stocks	296.3	248.5	150.5	0.4	0.3	0.1	0.1432	0.2536	0.2990
Exports	11,669.1	14,729.0	17,764.8	16.1	17.7	17.4	0.1582	0.2031	0.2047

CHAPTER Ⅱ
ORGANIZATIONAL STRUCTURE AND COMPILATION PROCESS

§1 Organizational Structure

1 A Joint Undertaking Organizational Structure

Since initial publication in 1955, Input-Output Tables for Japan have been compiled jointly by various pertinent authorities, including the Ministry of Internal Affairs and Communications.

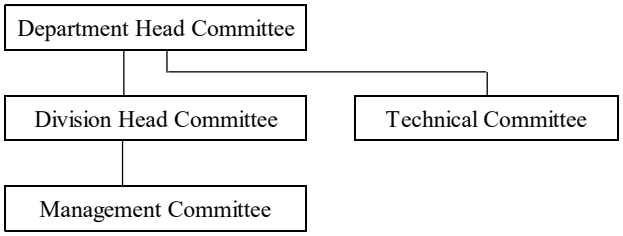
The 2015 Input-Output Tables were compiled as part of a five-year project starting in 2016 involving ten Office, Ministries and Agencies: The Ministry of Internal Affairs and Communications; Cabinet Office; Financial Services Agency; Mistry of Finance; Ministry of Education, Culture, Sports, Science and Technology; Ministry of Health, Labour and Welfare; Ministry of Agriculture, Forestry and Fisheries; Ministry of Economy, Trade and Industry; Ministry of Land, Infrastructure Transport and Tourism; and Ministry of the Environment.

2 Organizational Structure and Tasks

To enable smooth compilation, the Department Head Committee and other committees entrusted with various relevant functions were established as indicated in Chart 2-1.

Table 2-1 gives the functional assignments to Office, Ministries and Agencies.

Chart 2-1 Work Implementation Structure



Notes: 1 Technical Committee
Comprised of a panel of specialists capable of advising the Department Head Committee on technical matters related to the I-O Tables.

2 Management Committee
Comprised of representatives of authorities participating in joint projects.

3 Operating Budget

For the operating budgets for compiling Input-Output Tables, necessary expenses (excluding personnel labor costs) are earmarked in a lump sum to the Ministry of Internal Affairs and Communications, which in turn distributes the funds to the appropriate authorities in accordance with operational specifics.

Table 2-1 Major Assignments of Operations

Name	Primary Operations
Ministry of Internal Affairs and Communications	• Planning, liaising, coordination, and publication • Computerized tabulation and analysis calculations • Postal services and mail delivery, information and communications (exclusive of those covered by the Cabinet Office and other ministries and agencies) • Export and import sectors, within final demand sectors
Cabinet Office	• Sewage disposal, public administration, miscellaneous non-profit services, personal services (exclusive of those covered by other ministries and agencies) • Final demand sectors (exclusive of export and import sectors) • Gross value added sectors (exclusive of employee compensation)
Financial Services Agency	• Finance and insurance sectors
Ministry of Finance	• Salt, alcohol, tobacco, legal, financial and accounting service sectors
Ministry of Education, Culture, Sports, Science and Technology	• Education and research
Ministry of Health, Labour and Welfare	• Medicaments, water supply including private water supply, medical and welfare services, worker dispatch services, building maintenance services, life and hygiene related services • Total of compensation of employees, of gross value added sectors
Ministry of Agriculture, Forestry and Fisheries	• Agriculture, forestry and fishery, beverage and food manufacturing industries (exclusive of liquors and tobacco), lumber, and eating and drinking services
Ministry of Economy, Trade and Industry	• Mining and manufacturing industries (exclusive of those covered by the Cabinet Office and other ministries and agencies), recovery and processing of

	recycled resources, electricity, gas and heat supply, industrial water supply, commerce, information services, newspapers, publication, business services (exclusive of those covered by the Cabinet Office and other ministries and agencies) • Office supplies
Ministry of Land, Infrastructure, Transport and Tourism	• Construction, real estate and civil engineering sectors • Transport, ships and repair of ships, rolling stock and repair of rolling stock
Ministry of the Environment	• Waste treatment services

§2 Overview of Compilation Project

As shown in Table 2-2, the compilation of Input-Output tables can be categorized into "I Review of Framework and Preliminary Work", "II Main Work for Compiling input-Output tables" and "III Compilation of Linked Input-Output tables", but as enormous amounts of materials are handled, and work contents cover a broad range of topics, compilation was implemented as a joint project by the 10 authorities, and the project period extended for more than 4 years.

In addition, among the various statistical tables created as Input-Output tables, the "Basic Transaction Table," which serves as the most basic table, was compiled based on the procedure shown in Chart 2-2.

An overview is shown below for each work category.

1 Determination of Basic Guidelines

Since the first publication in 1955, Input-Output tables for Japan have been compiled roughly every five years as a joint project by relevant authorities. However, the compilation cycle and work structure are not legally specified. Since the tables are a large-scale project spanning over five years as a joint project by relevant authorities, in order to systematically and rationally carry out work, it is necessary to create a framework beforehand regarding the format of the Input-Output tables, the division of work, and the schedule. In addition, as Input-Output tables are positioned as part of the SNA (System of National Accounts) and it is necessary to achieve consistency with the Japan Standard Industrial Classification and the International Standard Industrial Classification in establishing sectors, it is also necessary to organize review topics in the compilation process.

To support such requirements, the Basic Guidelines are what are decided on by the Department Head Committee as something that indicates the fundamental design for when starting work to compile Input-Output tables. For the 2015 tables, the "2015 Basic Guidelines for Input-Output tables" were decided on in March 2016.

In these Basic Guidelines, the following points were clarified as basic recognition for when compiling the 2015 tables:

[1] "Master Plan Concerning the Development of Official Statistics" of 2014, (approved by the Cabinet on March 25, 2014) incorporating various issues related to Input-Output tables was formulated.

[2] The 2008 United Nation recommendations for SNA which needs to comply with the concepts, definitions, etc. of the Input-Output tables classifications, and the 2013 revision of the Japan Standard Industrial Classification should be addressed.

[3] Changes in the survey timing of the Economic Census for Business Activity should be addressed. (The current census targeting 2015 will be postponed for 4 months (June 2016) unlike the previous census targeting for 2011 which was conducted in February 2012.

On that basis, major topics for review are as follows.

[1] Issues raised in "Master Plan Concerning the Development of Official Statistics" of 2014 should be addressed.

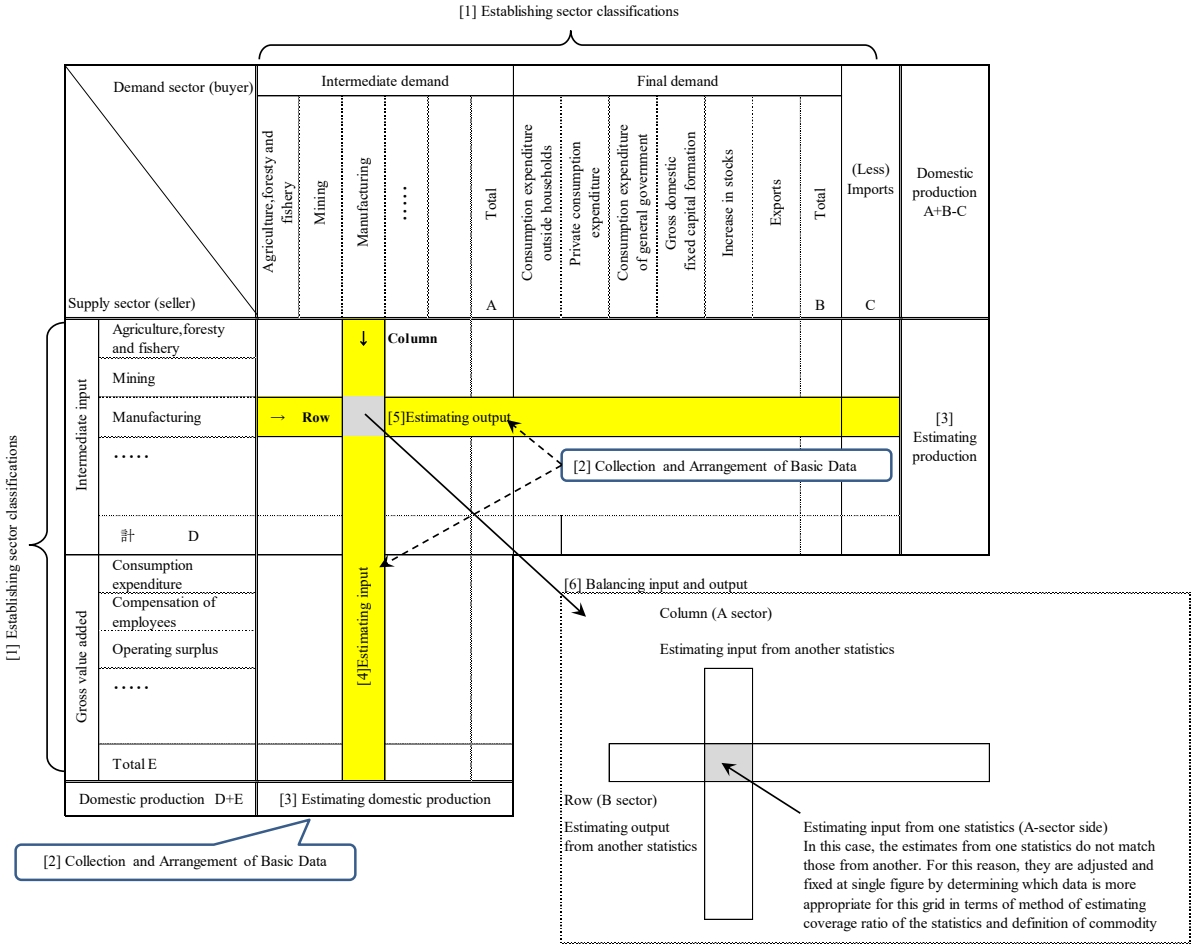
[2] Issues associated with 2008 United Nation recommendation and the revision, etc. of the Japan Standard Industrial Classification should be addressed.

In addition, with regard to the project structure, it was specified that the project will be implemented as a joint project by the ten authorities, including the Ministry of Internal Affairs and Communications, in continuation of the previous 2011 Input-Output tables.

Table 2-2 Compilation Workflow for Input-Output Tables

Work category		Major contents of work	Work period
Ⅰ	Review of Framework and Preliminary Work		
	① Determination of Basic Guidelines	Formulation of basic design for compiling Input-Output tables, such as project implementation structure, points to consider in compiling tables, major review items, compilation schedule, etc.	2016.3 Determination
	② Determination of Basic Outline of compilation	Organization and refinement of the following items, based on the basic design presented in the Basic Guidelines ・Basic framework for compilation ・Changes from the previous tables ・Compilation procedure, work contents ・Establishment of sector classifications, concept/definition/scope of each sector, etc.	2016.3～2017.8 Review 2017.8 Determination
		Based on the determination on the Basic Outline, the Minister of Internal Affairs and Communications is notified of compilation method (change) based on Article 26 of the Statistics Act	2019.4
	③ Collection and Arrangement of Basic Data	・Statistical data ・Administrative record ・Reclassified counting ・Surveys on Input-Output structure ・Industry data	2016.4～2018.12
Ⅱ	Main Work for Compiling Input-Output tables		
	④ Estimating and balancing of figures	・Estimating domestic production ・Estimating input ・Estimating output ・Balancing of input and output	2018.1～2019.5
	⑤ Compilation of various coefficients tables	・Input coefficients table ・Inverse matrix coefficients table ・Domestic production inducement coefficients table ・Gross Value added inducement coefficients table ・Import inducement coefficients table ・Others	
	⑥ Compilation of various supplementary tables	・Table on value and Quantity ・Table on scrap and by-products ・Table on employees engaged in production activities(by Occupation) ・Employment matrix ・Fixed capital matrix ・Table on commodity output by industry ・Table on self-transport	2019.3～2019.6
	⑦ Publication of the results and preparation of report	・Publishing the results ・Distributing materials in the Cabinet meeting (points and summary)	2019.6 2019.7
Ⅲ	Tabulation of the Linked I-O Tables		
	⑧ Compilation and Publication of the Linked I-O Tables	・Establishing the sector classification for the Linked I-O Tables ・Compiling Linked I-O Tables at current price ・Computing Inflator ・Compiling Linked I-O Tables at constant price ・Publishing the results	2019.7～2020.8

Chart 2-2 Overview of Input-Output Table Compilation Procedure



(Note) The following explanations concern [1]–[6] above.

[1] Establishing sector classifications

Various statistics based on different classifications are used as the basic data for the Input-Output Tables. It is therefore necessary to establish sector classifications in terms of their concept, definition, and scope in order to record Japan's industry activity in a well-integrated manner. The following work is performed in accordance with these sector classifications.

[2] Collection and Arrangement of Basic Data

In addition to gathering information related to existing statistics, such as information on administrative records and information on primary statistics, which are represented in the Economic Census, information on input structure and output structure, which are not obtained in existing statistics, is obtained by carrying out "Survey on Input-Output Structure."

For existing statistics, reclassified counting is carried out so that values correspond to the sectors in the Input-Output tables.

[3] Estimating domestic production

Domestic production is estimated by sector using the basic data.

[4] Estimating input

The breakdown (detailed breakdown of raw materials and gross value added) of the domestic productions by column sectors (goods or services) is estimated based on the surveys of production costs and the Survey on Input-Output Structure. The Input Table is then compiled.

[5] Estimating output

The breakdown of customers by row sectors (goods or services) is estimated based on the surveys of product supply and demand. The Output Table is then compiled.

[6] Balancing input and output

The figures given in the Input and Output Tables differ, as they are estimated from different statistical data. The figures for all sectors are reconciled, made consistent, and compiled. Both are cross-checked, and the figures that are thought to be more adequate are used.

2 Determination of the Basic Outline of Compilation

(1) Determination of the Basic Outline of Compilation

The Basic Guidelines described in the preceding section specify the major orientation and review topics in starting work to compile the Input-Output tables. Input-Output tables cover domestic economic activities, estimate various transactions concerning goods and services using various statistics and other materials in the light of input and output, and compile the results into tables. In order to carry out concrete work for compiling Input-Output tables, it is necessary to set details beforehand, such as how to comprehend transaction activities, of what kind of scope, based on what kinds of principles, as well as what kind of estimation method to use, and as a result, what kind of statistical tables to compile.

Based on these kinds of necessities, the Basic Outline of Compilation specifies "detailed designs" for compiling Input-Output tables, such as (1) the basic framework for compilation, (2) changes from previous tables, (3) compilation procedure and work contents, (4) establishment of sector classifications and the concept/definition/scope of each sector, etc.

For the 2015 Input-Output tables, the Management Committee conducted reviews while obtaining advice from the Technical Committee regarding specialized technical matter, and specified the "Basic Outline for Compiling 2015 Input-Output Tables," which was determined at the Department Head Committee in August 2017.

(2) Changes in Sector Classifications

In the process of reviewing the Basic Outline of Compilation, sector classifications were reexamined.

A list of sector classifications used in the 2015 Input-Output tables is shown in Chapter VI.

(3) Notification of Compilation Method Based on Article 26 of the Statistics Act

In the Statistics Act, among the statistics compiled by the government's administrative agencies, those that are particularly important are oriented as "fundamental statistics," and the procedures for when statistics that are compiled based on a method other than statistical surveys (so-called processed statistics and administrative statistics) are designated as "core statistics." Concretely, based on Article 26 of the Statistics Act, it is necessary to notify the Minister for Internal Affairs and Communications beforehand regarding the method for compiling statistics.

Even for the Input-Output tables, this procedure has become necessary due to their designation as fundamental statistics in July 2010. The Minister for Internal Affairs and Communications was notified of the compilation method (change) in response to the determination of the Basic Outline of Compilation.

3 Collection and Arrangement of Basic Data

Input-Output tables are processed statistics that are compiled using all production activities and transactions carried out domestically over the course of a year. Thus, in order to carry out highly accurate estimations, it is important to systematically gather and organize materials from a wide range of sectors, and enable for them to be used in estimation work.

In compiling the 2015 tables, all usable data has been collected, such as information on administrative records that are obtained in association with procedures for permits and approvals, as well as industry data (Refer to Table 2-3 for a list of major data).

In addition, for sectors where there would be insufficient information if existing data is used, "Survey on Input-Output Structure" (Note) (Table 2-4) is carried out, and where necessary, hearings with relevant industries were also carried out.

In estimation work, reclassified counting was carried out for "Economic Census for Business Activity" and "Trade Statistics" data that are used in a cross-sectoral manner across many sectors, after replacing them for the sector classifications in Input-Output tables.

(Note) Up until the point of compilation of the 2005 tables, this was collectively referred to as "Special Surveys for Compilation of Input-Output Tables," but it has been collectively referred to as the "Survey on Input-Output Structure" since the 2011 tables.

Table 2-3 Data Sources Used to Compile the 2015 Input-Output Tables

Organization	Title of Material
Cabinet Office	National Accounts Fact-finding Survey of Private-sector Non-profit Institutions
Ministry of Internal Affairs and	Population Census Housing and Land Survey

Communications	Labour Force Survey Family Income and Expenditure Survey Employment Status Survey Survey of Research and Development Yearbook of Local Financial Statistics Yearbook of Local Public Enterprises
Ministry of Internal Affairs and Communications and Ministry of Economy, Trade and Industry	Economic Census Basic Survey on the Information and Communications Industry
Ministry of Finance	Financial Statement Statistics of Corporations by Industry Detailed Statements on Settled Accounts Annual Report on Settled Accounts of Ministries and Agencies Foreign Trade Statistics Situation of Incorporated Enterprises Based on Tax Statistics National Tax Agency Annual Statistics Report
Ministry of Education, Culture, Sports, Science and Technology	School Basic Survey Social Education Survey Current Status Survey on School lunch Survey of Household Expenditure on Education per Student Survey on Local Education Expenditure
Ministry of Health, Labour and Welfare	Monthly Labour Survey Production Statistics by Pharmaceutical Industry Basic Survey on Wage Structure Survey on Economic Conditions in Health Care (Survey on Health Care Facilities) Fact-finding Survey on Project of Long-term Care (Briefing Survey on Economic Conditions in Long-Term Care) Status report on Long-term Care Insurance Estimates of National Medical Care Expenditure General Survey on Working Conditions
	Water Supply Statistics Report on worker dispatching undertakings
Ministry of Agriculture, Forestry and Fisheries	Statistical Crops Survey Statistical Survey on Milk and Dairy Products Statistical Lumber Survey Statistics survey on Commodity Price in Agriculture Statistics of Agricultural Income Produced Statistics of Forestry Income Produced Fishery Output Survey on Livestock Products Marketing Survey on Marketing of Fishery Products Statistics on Production Costs of Crops Statistics on Production Costs of Livestock Survey on Forestry Households Economy Survey on Fishery Management Food Balance Sheets
Ministry of Economy, Trade and Industry	Statistics Survey of Current Industrial Production Current Survey of Commerce Survey of Selected Service Industries Current Survey of Energy Consumption in the Selected Industries Report concerning the State of Operations by Quarry Owners Crushed Stone Statistics Survey Survey on Precious Metals Distribution Iron and Steel Supply and Demand Statistics Non-Ferrous Metal Supply and Demand Statistics Ready-mixed Concrete Statistics Survey General Energy Statistics Structural Survey of Energy Consumption
Ministry of Land, Infrastructure, Transport and Tourism	Survey on Shipbuilding and Engineering Survey on Current Rolling Stock Production Annual Railroad Statistics Survey on Railway Transport Survey on Motor Vehicle

	Transport
	Survey on Coastwise Vessel Transport
	Survey on Air Transport
	Consumption Trend Survey for Foreigners Visiting Japan
	National Tourism Survey
	Building Starts
	Statistics on Construction Works
	Quick Estimate of Construction Investment
	Corporation Survey on Land and Buildings

Table 2-4 Surveys on Input-Output Structure Conducted for Compilation of the 2015 Input-Output Tables

Organization/ Survey on Input-Output Structure	Implementation Period
＜Ministry of Internal Affairs and Communications＞	
Survey of Service Industries and Non-Profit Organizations	2017.10～11
Survey on Management Activities of Enterprises	2016.10～11
Input Survey of Communication, Broadcasting	2016.9~10
＜Ministry of Finance＞	
Input Survey of Liquor Industry	2016.9～12
＜Ministry of Health, Labour and Welfare＞	
Input Survey of Medical and Social welfare	2016.9～10
＜Ministry of Agriculture, Forestry and Fisheries＞	
Input Survey of Agricultural Service	2016.8～9
Input Survey of Seed and Seeding	〃
Input Survey of Log Production (Non-national forest)	〃
	〃
Input Survey on Mushroom Cultivation and Production	〃
Input Survey of Inland Water Aquaculture	〃
Input Survey on Agriculture, Forestry and Fisheries related Manufacturing Industry	〃
Input Survey of Agricultural Construction	〃
Input Survey of Forestry Construction Ordered by Government	〃
＜Ministry of Economy, Trade and Industry＞	
Input Survey of Mining and Manufacturing Industry	2015.10～12
Survey on Capital Goods Demand	2016.10～12
Survey on Profit Margins of Commerce	2017.10～12
Survey on Sale Destination of Import Goods	〃
＜Ministry of Land, Infrastructure, Transport and Tourism＞	
Survey on Inland Shipping Charges by Articles	2015.10
Survey Concerning Charged Parking Lots	2016.5～7
Input Survey Concerning Packing Industry	〃
Survey on Transport-related Facilities of Local Governments	〃
Survey on Transport-related Business Input	2016.9～11
Survey on the Breakdown of Construction Ordered by Government (Preliminary Survey)	2016.4～5
Input Survey of Public Construction Works	2016.8～11
Breakdown Survey of Indirect Expenses on Civil Engineering Works	2016.9～11
Input Survey of Civil Engineering Work	2016.9～2017.1
Breakdown Survey Expenses on Civil Engineering Works ordered by incorporated administrative agencies	2016.8～10
Input Survey of Building Expenses	2016.10～2017.2
Fact-finding Survey on Real Estate Industry	〃

4 Compilation and Balancing Figures

At each stage when various basic data becomes available, estimation work is carried out sequentially. Among the various statistics that are compiled for Input-Output tables, the “Basic Transaction Table” that serves as the most basic statistics was compiled based on the following procedure. (See Chart 2-2)

[1] Estimation of domestic production

[2] Estimation of input and output(Note)

[3] Balancing of input and output

(Note) “Input” and “Output” are both terms that bear in mind the breakdown for each of the sectors of endogenous sectors (intermediate demand sectors, intermediate input sectors), but in actual work to compile Input-Output tables, the breakdown of vertical figures in the column sectors are referred to as “Input” and the breakdown of horizontal figures in the row sectors are referred to as “Output,” regardless of whether they are endogenous sectors or exogenous sectors (final demand sectors, gross value added sectors).

(1) Estimating the Domestic production

First, the value of the domestic production by sector that is recorded in the very right and very bottom of the Basic

Transaction Table was estimated.

Simply put, domestic production is the total amount of production and transactions over the course of one year for each sector.

Domestic production by sector is a number that is first estimated when carrying out estimation work for the Basic Transaction Table, and after establishing this domestic production value, input and output are estimated as its breakdown. For this reason, errors in the value of domestic production may affect not only input and output of its own sector, but those for other sectors as well. In such a way, domestic production is very important as a "control value" for both the row sectors and column sectors in the Basic Transaction Table, and due to such a positioning, they are often referred to as control totals (CT).

In estimating domestic production by sector, it is better to divide and comprehend the goods and services that are included in each sector in as detailed of a manner as possible in order to increase accuracy of the Basic Transaction table. Thus, estimations were carried out of approximately 3,400 detailed items, which were then cumulated and domestic production was estimated by row sector and column sector of the basic sector classification.

When doing so, in principle, production was estimated for goods using "production quantity × unit price" for each detailed item. Because quantitative units are irrelevant in many service items, values are estimated directly based on the sales amount of the respective detailed items. Production values concerning the activities of non-market producers of the general government and private non-profit institutions serving households were estimated by accumulating the cost of their activities.

(2) Input Estimates

Input estimation refers to the breakdown of the cost composition (including gross value added composition) for domestic production of column sectors (vertical sectors in Basic Transaction Table).

As the general procedure for estimations, an overall picture such as of intermediate input of raw materials, fuel, etc. and gross value added such as compensation of employees, etc. is estimated, and detailed items are then estimated.

For example, for the majority of industrial products, results of reclassified counting for the Economic Census for Business Activity are used to estimate the overall picture of major raw material usage, fuel consumption, cash salaries, depreciation, etc. Next, data related to raw materials statistics and production technology, and results of the Survey on Input-Output Structure that was implemented separately were used to estimate detailed expense breakdowns.

(3) Output Estimates

Output estimation refers to estimating the breakdown of the sales channel composition, or to which intermediate demand sector of final demand sector domestic production in the row sectors (horizontal sectors in the Basic Transaction table) was sold

The basic estimation method is to establish "Total supply" as imports (absolute value) added to domestic production by sector, from which exports are deducted to estimate the "Gross domestic supply." Next, this gross domestic supply is distributed to the respective demand sectors using a wide range of supply and demand statistics, depending on product characteristics for detailed items.

(4) Balancing of Input and Output

Input and output values are estimated separately by different methods, using separate basic data. As a result, even for the same cell in the Basic Transaction Table, the amount estimated from the input side and the amount estimated from the output side differ at first. Hence, for each of the cells in the Basic Transaction Table, the input is cross-checked with the output, and balancing to conform figures with the amounts that are thought to be more adequate is carried out.

[Reference] Method for compiling Input-Output tables as advocated by the United Nations

With regard to the compiling of Input-Output tables, in the United Nations' "Handbook of Input Output Table Compilation and Analysis," it is advocated that the "supply Table" (equivalent, in terms of content, to what used to be referred to as the "V table" (table on commodity output by industry) and the "use table" (equivalent to what used to be referred to as the "U table" (table on commodity input by industry) are first compiled, after which a "symmetric Input-output table" for commodity × commodity (table where column sectors and row sectors are supported one-on-one) is compiled based on either an industrial technology assumption or

product technology assumption.

In Japan, however, since the 1955 tables that were compiled as a joint project by relevant authorities, a table of [row] commodities and [column] activities (commodities) was "directly" compiled, based on the methods described in (1) to (4) above, without compiling U tables and V tables. This is thought to derive from the fact that in Japan, there was an environment where various statistics centering on the manufacturing industry were developed to a significant extent, such as data related to production for each commodity.

5 Compilation of Various Coefficients Tables

In the process for compiling Input-Output tables, in addition to the Basic Transaction Tables based on the basic sector classification, Basic Transaction Tables based on aggregated sector classifications are also compiled, depending on their usage purpose. Basic Transaction Tables represent economic structures for the years covered, and can be used independently to elicit useful information. However, their use is limited to the scope of the original tables. On the other hand, Input-Output tables are used primarily for measuring policy effects through analysis of the multiplier effect.

Thus, following the compilation of the Basic Transaction Tables based on aggregated sector classifications, various coefficients tables, such as the input coefficients tables and the inverse matrix coefficients tables that are required for various analyses, are compiled.

6 Compilation of Various Supplementary Tables

The Basic Transaction Tables for Input-Output tables summarize the state of transactions of goods and services as a list. In order to carry out various input-output analyses, however, there are times when supplementary information is necessary.

Thus, in order to enable for multi-faceted use of Input-Output tables, the following supplementary tables have been compiled. An overview of the structure and compilation method, etc. for each supplementary table is given in Chapter V.

[1] Table on Value and Quantity

[2] Table on Scrap and By-products

[3] Table on Employees Engaged in Production Activities (by Occupation)

[4] Employment Matrix (Table on Employees Engaged in Production Activities [by Occupation])

[5] Fixed Capital Matrix (Table on Fixed Capital Formation)

[6] Table on Commodity Output by Industry (Make table)

[7] Table on Self-Transports

The "Table on Trade Margins," "Table on Domestic Freights" and "Table on Imports" were categorized as supplementary tables up until the 2005 tables. In terms of content, however, information related to the trade margin, domestic freight, and imports that are included in the Basic Transaction Tables based on the basic sector classification is aggregated as part of the medium aggregated classification (107 sectors). Thus, in and after the 2011 tables, these three tables have been sectioned as part of the statistical tables for the medium aggregated classification, and are no longer handled as supplementary tables.

7 Publication of the Results

Before, publication of the estimation results of the Input-Output tables was divided into a preliminary report and final report, based on the progress of the work. This time, as the survey period for "Economic Census for Business Activity" was postponed, the publication in two phases, namely the preliminary and final reports, was integrated into one final report to put the publication ahead compared to the 2011 tables.

The report summarizes various coefficient tables such as the Basic Transaction Tables of the basic sector classification (509 sectors [rows] x 391 sectors [columns]) and the minor aggregated classification (187 sectors), as well as various supplementary tables, all of which were compiled and published on June 27, 2019.

Statistical tables published for the compilation of the 2015 Input-Output tables are as indicated in Table 2-5. These tables can be obtained in Excel format from the Ministry of Internal Affairs and Communications homepage (MIC HP: http://www.soumu.go.jp/toukei_toukatsu/data/io/index.htm) and is published as printed matter titled, "2015 Input-Output Tables: Data Report." In addition, the "2015 Input-Output Tables: An Explanatory Report," a comprehensive explanatory report about the Input-Output Tables, can be referred to on the same homepage.

8 Compilation and Publication of the Linked Input-Output Tables

Although there are no major differences in the basic frame of the Input-Output Tables compiled every five years, several changes have been made in sector setups, as well as concepts, definitions, and scope of respective sectors. A direct comparison of tables from different periods is therefore not possible.

To analyze economic structures or other aspects with historical comparisons of these Input-Output Tables, the sectors, concepts, definitions, and so on must be made consistent for past tables and the newly compiled tables. Comparable values must be projected for past tables or for newly compiled tables.

Thus, Linked Input-Output Tables have been compiled to enable comparisons of different points in time by reclassifying the past Input-Output Tables for consistency with the newest sector classifications.

The Linked Input-Output Tables produce two different kinds of tables in accordance with price evaluation methods. The first is “Linked Input-Output Tables at current price,” in which tables for respective years are evaluated in terms of the prices for those years. The other is “Linked Input-Output tables at constant price,” in which past transaction prices are reevaluated (inflated) to permit historical comparisons in accordance with those in newly compiled tables.

Following the publication of the 2015 tables, the “2005-2011-2015 Linked input-output tables” were published in August 2020.

§ 3 Basic Framework of the Basic Transaction Tables

The “Basic Transaction Table” that serves as the core for various statistical tables that are compiled for the 2015 tables were compiled based on establishing the following concepts. For the general theory of Input-Output tables ((1) structure and how to view the tables, (2) fundamental theory of Input-Output tables), refer to Chapter III.

1 Duration, Scope, and Timing of Recording

The 2015 Input-Output tables cover production activities and transactions of goods and services for Japan in the year 2015.

The accrual basis was used to determine the points in time at which productions and transactions occurred.

2 Evaluation Methods

The size of transaction activities was evaluated based on monetary amounts.

Domestic transactions were evaluated based on the prices of actual transactions (actual prices).

Price evaluation of imported and exported goods was carried out based on CIF prices for imports in ordinary trade, and on FOB prices for exports in ordinary trade.

Table 2-5 List of Statistical Tables for Compilation of the 2015 Input-Output Tables

Titles of Statistical Tables			Basic (509×391)	Minor (187)	Medium (107)	Major (37)	Model
(1) "Self-transports" sector represented							
①	Basic Transaction Tables	Input Table	○	○			
		Output Table	○	○			
		Input-Output Table Valued at Producers' Prices	◆	◆	○	○	○
		Input-Output Table Valued at Purchasers' Prices			○	○	○
②	Input Coefficients at Producers' Prices			○	○	○	○
③	Inverse Matrix Coefficients Table	$[I-(I-M)A]^{-1}$		○	○	○	○
		$(I-Ad)^{-1}$		○	○	◆	
		$(I-A)^{-1}$		○	○	◆	
④	Table on Production Inducement by Individual Final Demand Items			○	○	○	○
⑤	Table on Gross Value Added Inducement by Individual Final Demand Items			○	○	○	○
⑥	Table on Import Inducement by Individual Final Demand Items			○	○	○	○
⑦	Import Coefficients, Input Coefficients of Imported Goods			○	○	○	
⑧	Table on Trade Margins		○	○	◆		
⑨	Table on Domestic Freights				◆		
⑩	Table on Imports				◆		
Supplementary tables ⑪	Table on Value and Quantity		○				
⑫	Table on Scrap and By-products		○				
⑬	Table on Employees Engaged in Production Activities (by Occupation)		○	○	○		
⑭	Employment Matrix(Table on Employees Engaged in Production Activities[by Occupation])				○		
⑮	Fixed Capital Matrix(Table on Fixed Capital Formation)		○				
⑯	Table on Commodity Output by Industry				○		
⑰	Table on Self-Transports		○				
(2) "Self-transports" sector not represented							
①	Basic Transaction Tables	Input Table	◆	◆			
		Input-Output Table Valued at Producers' Prices			◆	◆	
②	Inverse Matrix Coefficients Table	$[I-(I-M)A]^{-1}$		◆	◆	◆	
		$(I-A^d)^{-1}$		◆	◆	◆	
		$(I-A)^{-1}$		◆	◆	◆	

(Note) 1 ○: Published on both the Internet and printer matter

2 ◆: Published only on the Internet

3 In addition to the statistical tables listed in this Table, "Table on Domestic Production by Sector and Commodity" was also published as a compilation of domestic production used in compiling the 2015 tables.

3 Basic Structure of Basic Transaction Tables

i) The Basic Transaction Table is compiled as a table of Commodity (row) × Activity (or commodity) (column).

ii) As with the 2011 tables, both Input-Output tables at producers' prices(Note) and Input-Output tables at purchasers' prices in which the respective transaction values include trade margins and domestic freights have been compiled.

(Note) For Input-Output tables at producers' prices, trade margins and domestic freights that are incurred when commodities are distributed are collectively recorded in the Commerce sector and Transport sector, respectively (both row sectors).

iii) In order to accurately represent the size of the actual transaction amounts, each transaction amount is represented as the amount that includes consumption tax, and the tax amount is included in the indirect taxes of the gross value-added sectors.

iv) Representations related to imports are recorded as the "competitive import type," with the domestic products and imported goods recorded together.

Before the 2011 table, they were represented by the "competitive and non-competitive mixed import type" which separately indicated partial imports (wheat, beans, etc.).

4 Sector Classification

(1) Principle of Sector Classification

[1] Among the sectors that make up the Input-Output tables, row sectors (horizontal) are sectors that represent the sales channel structure of commodities, and are, in principle, classified based on commodities. Column sectors (vertical) represent the cost structure for each production activity, and are, in principle, based on "units of production activity," or "activity-based" (Note).

(Note) For sectors where a single activity corresponds to a single commodity, classifications are made based on commodities even for column sectors.

[2] In addition to the sectors based on [1]) above, "basic sector classification," which are the most detailed sectors when publishing Input-Output tables, possess classification functions (transactor-based productivity unit sectors) that are focused on the unit that carries out production activity in order to promote consistency with the System of National Accounts (SNA) indicated by the UN Statistical Commission. (Refer to Chapter III, 5 (3))

Classifications for production activity units are categorized based on a method of adding "*" to the end of the basic sector classification name as follows, in consideration of the marketability of the provided products.

- **: Non-market producers (General government)
- *: Non-market producers (Private non-profit institutions serving households)
- No symbol: Market producers

(2) Basic Sector Classification and Aggregated Classification

[1] System of classifications

The basic sector classification is comprised of 509 sectors (rows) and 391 sectors (columns).

The aggregated classification combines sectors with similar activities based on this basic sector classification and is made up of minor aggregated classifications (187 sectors), medium aggregated classifications (107 sectors), and major aggregated classifications (37 sectors). In addition, a 13-sector classification was also established as one that further combines the major aggregated classifications with the purpose of representing an explanatory template for the Input-Output Tables. (As for the sector classification table for 2015, refer to Chapter VI.)

Changes in the numbers of sector classifications for the basic sector classification and aggregate classification among the latest 2015 tables and previous tables (2011 tables and 2005 tables) are as shown in Table 2-6 below.

Table 2-6 Development of the Number of Sector Classifications

		2005 Tables	2011 Tables	2015 Tables
(1) Basic sector classification	(row)	520	518	509
	(column)	407	397	391
(2) Minor Aggregated Classification		190	190	187
(3) Medium Aggregated Classification		108	108	107
(4) Major Aggregated Classification		34	37	37

[2] Modifications in Sector Classifications

Taking changes in the economic structure into consideration, the sector classifications in the 2015 table were reviewed. The major modifications are as follows.

i) Basic sector classification

a Nurseries, which belonged to "Social welfare (public) **," "Social welfare (private, non-profit) *" and "Social welfare (profitmaking)" in the 2011 tables, have been removed and included in the new sector "Nursery."

b "Eating and drinking services" in the 2011 tables were divided into "Eating and drinking places," and "Food take out and delivery services."

ii) Aggregated classification

a The "School lunch" sector in the 2011 tables was moved from "Manufacturing" to "Services" in the 13-sector classification, and was moved from "1119 Miscellaneous foods" to "6311 School education" in the minor-aggregated classification.

(3) Final Demand Sectors and Gross Value Added Sectors

In principle, classifications were made such that there is consistency with the System of National Accounts.

However, from the perspective of stability of input coefficients, "Consumption expenditure outside households" was established for both the final demand sector and gross value added sector. Also, to evaluate imported goods with the same standard as that for domestic goods, and to clarify each transaction amount, custom duties and commodity taxes on imported goods were set for the final demand sector (part of total imports), rather than the gross value added sector.

5 Special Treatment

(1) Imputation

Imputations are conducted for the following:

[1] Financial mediation services

[2] Insurance services such as life insurance and non-life insurance

[3] House rents of owner-occupied dwellings and company housing units

(2) Establishment of Dummy Sectors

The intermediate sectors in the Input-Output tables were established based on commodity or activity. Among these, there are those listed below that cannot be thought of as independent, single industry sectors. These were established as “Dummy sectors,” taking into consideration convenience, etc. in compiling and utilizing Input-Output sectors. Gross value added is not recorded in dummy sectors.

[1] Used paper, scrap iron, non-ferrous metal scraps

[2] Self-transport (passengers and freight)

[3] Office Supplies

(3) Handling of Goods Rental and Leasing

For the goods rental and leasing industry, for which there are two schools of thought—“user principle” and “owner principle,” estimations were made based on “owner principle.” In addition, estimations for real estate rental service and worker dispatching services were also made based on “owner principle.”

[Reference1] The History of Input-Output Tables for Japan

(1) The History of Input-Output Tables

The Input-Output Tables was developed by Dr. W. Leontief (1906~1999), the winner of Nobel Memorial Prize in Economic Science. In 1931, he started to make Input-Output Tables about the US economy. He announced the plan in the magazine, "Review of Economics and Statistics" in 1936. It is said that the Input-Output Tables was an attempt of adjusting "General Equilibrium Theory" of L. Walras (1834~1910) to real national economy, and an attempt of making "Tableau Economique" of F. Quesnay (1694~1774) for the US economy.

This technique of Leontief's Input-Output Analysis was admitted by U.S. Department of Labor, Bureau of Labor Statistics. After 1941, the technique was developed with the support of Bureau of Labor Statistics. When the economic forecast for the post World-War-II was made by the Planning Committee of U.S. War Production Board, the Input-Output Analysis showed higher degree of accuracy than other analysis techniques. Then, the utility and importance of the Input-Output Analysis came to be admitted widely. Since then, the theory of the Input-Output Analysis has been researched by U.S. government offices of the United States, and many countries has come to compile the Input-Output Tables and utilized the Input-Output analysis for the national economy of each country in the world.

(2) The History of Input-Output Tables for Japan

The first compilation of the Input-Output Tables for Japan dates back to 1955 for the reference year. When the Economic Planning Agency （current Cabinet Office） and the Ministry of International Trade and Industry （current Ministry of Economy, Trade and Industry） and others complied provisional tables respectively. Thereafter, the Input-Output Tables came to be compiled as a joint work by the related ministries and agencies every five years.

A. 1951 Input-Output Tables

The 1951 Input-Output Tables was compiled abridged tables for the year 1951 by the Economic Planning Agency (EPA) and the Ministry of International Trade and Industry (MITI) respectively, and published in 1955. At the same time, the Ministry of Agriculture and Forestry （current the Ministry of Agriculture, Forestry and Fisheries） compiled the abridged tables focused on the sector of agriculture and forestry.

While the tables compiled by the EPA covered 9 sections responding to the System of National Accounts, those by METI contained 182 detailed sections. Although both tables similarly dealt with all industries, they were compiled in accordance with different classifications, concepts, definitions, and different estimation methods. As a result, there are inevitable differences in the figures between the two tables.

The differences might be unavoidable, because both tables were compiled with different purposes. But, having two different kinds of figures for the same economy and the same reference year was undesirable. Therefore, the Statistics Council of the Administrative Management Agency (current Ministry of Internal Affairs and Communications) was reported as of 30 June 1955 that the related ministries should compile the integrated and unified Input-Output tables.

B. 1955 Input-Output Tables

After the publication of 1951 Input-Output tables, the Ministry of International Trade and Industry compiled 1954 abridged extension tables and 1955 preliminary tables. The Economic Planning Agency also compiled 1953 Input-Output tables and 1955 abridged tables. As the Input-Output tables shifted from the experimentation phase to the stage of practical use, it came to be requested strongly to compile the Input-Output Tables with high accuracy. In response to the report of the Statistics Council and the requests on accuracy, the related ministries submitted the integrated budgetary appropriation for the compilation of 1955 tables. And, the meeting of the related ministries was taken place on March 1957, and the meeting decided to compile the next Input-Output tables as a joint work.

Therefore, the working group was organized by 6 ministries and agencies, i.e., the Administrative Management Agency、the Economic Planning Agency, the Ministry of Agriculture and Forestry, the Ministry of International Trade and Industry and the Statistics Bureau in change of tabulation. The meeting discussed the setting, concept, and definition of sector classification, the method of evaluation of production, and the availability of the basic date, etc. Based on the result, it had been come to start full-dress collaboration work since April 1958.

The joint work continued from 1958 F.Y to 1959 F.Y., and it was decided that the reference year was to be 1955 year.

The reasons were as follows.

・ In 1958, almost all the data available were for the year

1955.

- Economic situations in 1955 were comparatively normal.
- The bench-mark year of national income statistics and other economic indexes were expected to be 1955.

As a result of work over a period 2 fiscal years, the preliminary tables were published in June 1960, and the final tables were published in June 1961 respectively.

C. 1960 Input-Output Tables

The 1960 Input-Output Tables was the first publication which was compiled by a joint work of the related ministries. In those days, however, they did not necessarily recognize that compilation would continue in the following phases. But, the 1960 Input-Output Tables had problems to be improved in respect of the consistency with national income statistics, which was the main account of the SNA, and sector classification. In addition, there were remarkable change in industrial structure according to technical innovation, and they needed materials for reviewing the Input-Output Tables as of the doubling national income plan. Therefore, the compilation of the Input-Output Tables for new reference year came to be requested strongly.

As the background of such situations, the budgetary appropriation for compiling 1960 Input-Output Tables was admitted. At the same time, the present system of the Input-Output Tables was established as being compiled by the joint work of the related ministries every five years.

The work was executed as continuous project for 2 fiscal years, 1962 to 1963. Then, the role of the Statistics Bureau of the Prime Minister's office, which had been in change of data processing by computer, was succeeded by The Ministry of International Trade and Industry. And, the Ministry of Transport (current the Statistics Bureau of the Ministry of Land, Infrastructure, Transport and Tourism) and the Ministry of Labour (current the Ministry of Health, Labour and Welfare) participated newly in joint work in addition to the ministries participated in compiling the 1955 Input-Output Tables. Thus, the 1960 Input-Output Tables was complied by joint work of seven ministries and agencies. Under the cooperation of the experts and ministries concerned, detailed reviews were done for desirable Input-Output Tables to be useful as basic statistics standard tables that were able to be used over a long period of time.

As a result, the frame of Input-Output Tables, which had consistency with SNA, came to be compiled. And, the sector classifications, concepts and definitions were basically improved in respect of comparability of long term time series and international comparability. As a rule, the sector classification was adopted on the basis of the Standard Industrial Classification for Japan and the International Standard Industrial Classification of all Economic Activities.

D. 1965 Input-Output Tables

The 1965 Input-Output Tables did not change greatly compared with the 1960 Input-Output Tables established as the standard of SNA. The basic frame did not change so as not to spoil the time series analysis, the basic frame did not change. But, it changed only to improve remaining issues, and establishment, division, and integration of sectors were undertaken according to appearance of new industries and growing industries.

The publication of result tables was made in July 1965. As methods of use were upgrade, the basic transaction tables, consisting of 456 row sectors×339 column sectors based on basic sector classification, were published for the first time.

And, after the publication of 1965 Input-Output tables, the 1960-1965 extension tables were compiled for the first time for time-series comparison with the 1960 Input-Output tables.

E. 1970 Input-Output Tables

The 1970 Input-Output Tables were basically compiled by using the frame of 1960 Input-Output Tables in the same way as the 1965 Input-Output Tables. But, International Standard Industrial Classification of all Economic Activities has revised in 1968, and 68SNA was presented. Therefore, the 1970 Input-Output Tables were improved in handling of sector classification. As a supplementary table, Fixed Assets Matrix was newly compiled.

F. 1975 Input-Output Tables

The characteristics of 1975 Input-Output Tables was that endogenous sectors were divided into 3 groups, i)industry, ii)producers of government services, iii)producers of the private nonprofit services to household. Particularly, as for producers of government services including a part of government services, which were not classified as production activities, were coded to the endogenous sectors, and "the producers of government services" were divided into "public" services and "non-public" services.

And, it was expanded from the system of 7 ministries to the system of 11 ministries till then. In other words, for the compilation of 1975 Input-Output Tables, the Ministry of Finance (current Department of the Treasury), the Ministry of Education (current the Ministry of Education, Culture,

Sports, Science and Technology), the Ministry of Health (current the Ministry of Health, Labour and Welfare) and The Ministry of Posts and Telecommunications (current the Ministry of Internal Affairs and Communications) participated newly in a joint work.

G. 1980 Input-Output Tables

Compared with the 1975 Input-Output Tables, the 1980 Input-Output Tables had no substantial changes except the concept of producers of government services corresponding to division, integration of the sectors according to the increase and decrease in the amount of production, and the arrangement of "non-public" of producers of government services corresponding to 68 SNA.

And, the Administrative Management Agency took over the works of data processing by computer from the Ministry of International Trade and Industry.

And, the result was published in the form of magnetic tape in advance of the publication in the form of hardcopy, when the figures were fixed.

H. 1985 Input-Output Tables

After 1980, the Japanese Industries structure changed rapidly. And, the Standard Industrial Classification for Japan was revised in January 1984 and enforced in April 1985.

Therefore, the sector classification, mainly the manufacturing sector, was substantially revised, taking into consideration the compilation and use of tables.

The sector codes of basic classification were systematically arranged, and the endogenous sectors were revised all over on domestic sector.

I. 1990 Input-Output Tables

The method of estimation of service sector was improved on the 1990 Input-Output Tables. For example, based on the 1985 Input-Output Tables, service sector was divided and new sector was established on the 1990 Input-Output Tables, and basic materials concerning the service industry to estimate was enhanced. As for "Rental and leasing of goods and services", the estimation by the former user principle was renewed to the estimation by the owner principle, and the self-activity sector was renewed.

The consumption tax adopted in 1989 was included in the "Operating surplus" range.

J. 1995 Input-Output Tables

The basic framework of the 1995 Input-Output Tables followed the former ones, but the sector classifications such as was set up corresponding to the outline of the recommendations of 93 SNA and to the revision of Standard Industrial Classification for Japan (1993, Oct.), and service sector was expanded, and the basic materials for estimation was also enhanced.

The method of accounting indirect taxes was changed to that of accounting inclusive consumption tax.

K.2000 Input-Output Tables

The basic framework of the 2000 Input-Output Tables followed the former ones, and corresponded to the outline of the recommendations of 93 SNA. To reflect economic social structure of Japan in recent years, new sector classifications, such as "Reuse and recycling" and "Nursing care", were set up.

Mechanical balance-adjustment "Lagrange's method of indeterminate Multipliers" was used for aggregation of preliminary figures. Though, this method had the problem in processing techniques, it contributed to the early release of preliminary reports.

According to the reorganization of ministries and agencies in January 2001, the 2000 Input-Output Tables was accomplished as a joint work of ten office, ministries, and agencies including the Ministry of Internal Affairs and Communications (The name changed from the Ministry of Internal Affairs and Communications as of September 10, 2004) instead of the former joint work of 11 ministries and agencies.

L.2005 Input-Output Tables

In the 2005 tables, there were no large changes from the 2000 tables, but in line with the revision of the Japan Standard Industrial Classification (March 2002), and in association with sophistication of information and communications, reorganization of sectors related to information and communications and of sectors related to information-related manufacturing was carried out.

M.2011 Input-Output Tables

In the 2011 tables, the basic framework adheres to conventional policies, and sector classifications were established so that they correspond to the revision of the

Table 2-7 Supplementary Tables Yet Compiled

	Various Supplementary Tables	'55	'60	'65	'70	'75	'80	'85	'90	'95	'00	'05	'11	'15
1	Table on Value and Quantity	○	○	○	○	○	○	○	○	○	○	○	○	○
2	Table on Scrap and By-Products		○	○	○	○	○	○	○	○	○	○	○	○
3	Table on Employees Engaged in Production Activities(by Occupation)		○	○	○	○	○	○	○	○	○	○	○	○
4	Employment Matrix				○	○	○	○	○	○	○	○	○	○
5	Fixed Capital Matrix				○	○	○	○	○	○	○	○	○	○
6	Table on Commodity Output by Industry						○	○	○	○	○	○	○	○
7	Table on Self-Transports						○	○	○	○	○	○	○	○
8	Table on Trade Margins		○	○	○	○	○	○	○	○	○	○	(Note)	(Note)
9	Table on Domestic Freights		○	○	○	○	○	○	○	○	○	○		
10	Table on Imports		○	○	○	○	○	○	○	○	○	○		

(Note) The "Table of Trade Margins," "Table of Domestic Freight," and "Table of Imports" were categorized as supplementary tables until the 2005 tables. In terms of content, however, information related to the trade margin, domestic freight, and imports that are included in the Basic Transaction Tables based on the basic sector classification is aggregated as part of the medium aggregated classification. Thus, from the 2011 tables, these three tables were sectioned as part of the statistical tables for the medium aggregated classification, and are no longer handled as supplementary tables. Publication of these tables are on the Internet only.

Japan Standard Industrial Classification (November 2007). In addition, as an approach that is based on the general meaning of the 93SNA, the "imputed interest" method for "Financial service" was amended, and the "FISIM (Financial Intermediation Services Indirectly Measured)" method was introduced.

With regard to the code numbers for sectors up until the 2005 tables, there was reciprocal consistency between the basic sector classification and minor aggregated classification, but for the medium aggregated classification and major aggregated classification, sequential numbers were added mechanically, and thus, considerations were not made to their relationship with the basic sector classification and minor aggregated classification. Hence, in the 2011 tables, complete reexaminations were carried out so that the correspondence relationships of code numbers, from the basic sector classification to the major aggregated classification, have consistency.

There were also large changes in the estimation materials, estimation methods, etc., such as using the "Economic Census for Business Activity" that was implemented for the first time for 2011 as important basic data.

N.2015 Input-Output Tables

In the 2015 tables, the basic framework adheres to the conventional policies in the 2011 tables, and sector classifications were reviewed so that they correspond to the revisions of the Japan Standard Industrial Classification (October 2013).

In addition, as an approach based on the general meaning of the 2008 SNA, the following matters were addressed:

1) Assign research and development as fixed capital
2) Refine the handling of ownership transfer costs
3) Assign defense equipment expenditures to gross domestic fixed capital formation and increase in stocks of raw materials and supplies
4) Assign a part of the repair of construction (renovation and renewal of construction) to gross domestic fixed capital formation

To be consistent with the 2008 SNA, the names of the transactor-based productivity classification have been changed from "Producer of government services" to "Non-market producer (General government)"; "Producer of private non-profit services for households" to "Non-market producer (Private non-profit institutions serving households)"; and "Industry" to "Market producer."

In addition, the "Balancing sector" sector which had been contained in the Tables up to 2011 was deleted, but the sums corresponding the Balancing sector were allocated to the export sector without being deleted from the transaction amount of each sector.

Table 2-8 Flow of the Input-Output Tables for Japan

	1951	1955	1960	1965	1970	1975
Number of sectors (Basic sector classification)	Row9×Column9 (Economic Planning Agency) Row182×Column182 (Ministry of International Trade and Industry) Row62×Column62 (Ministry of Agriculture, Forestry and Fisheries)	Row310×Column278	Row453×Column339	Row447×Column341	Row541×Column407	Row554×Column407
Transactions within own sector	All are included in principle.	All are included in principle, except for those values of parts and semi-finished goods that are consumed within sector.	Same as 1955.	Same as 1955.	Same as 1955.	Same as 1955.
Scrap and By-products	Those are in principle dealt with by Transfer method. For MITI table, scrap is classified under the scrap sector.	Transfer method	Those are in principle dealt with by Stone's method.	Same as 1960.	Same as 1960.	Same as 1960.
Valuation	Actual producers' prices.	Uniform producers' prices.	Actual producers' prices (tables valued at actual purchasers' prices are also compiled.).	Same as 1960.	Same as 1960.	Same as 1960.
Imports	Competing and non-competing inclusive (mixed method)	Mixed method. Simplified non-competing type tables are also estimated.	Competing. Non-competing imports are also compiled.	Same as 1960.	Same as 1960.	Mixed method(A partial non-competing tables are also compiled.).
Consumption expenditure outside households	Treated as an endogenous sector.	Same as 1951.	Treated as an exogenous sector.	Same as 1960.	Same as 1960.	Same as 1960.
Public school, hospital services and others	The output is treated as government consumption expenditure. Treated as industrial sector.	The output is treated as households consumption expenditure. Treated as industrial sector.	The output is treated as government consumption expenditure. Treated as industrial sector.	Same as 1960.	Same as 1960.	The portion borne by the households is treated as household consumption expenditure, while the balance is treated as government consumption expenditure.
Public administration and defense	Treated as government consumption expenditure.	Same as 1951.	Endogenous sector for public administration and defense is set up, but only value added items are estimated. The output is treated as government consumption expenditure.	Same as 1960.	Same as 1960.	Same as 1960, however, for these sectors are treated intermediate consumption expenditure.
Imputed services of financial institutions	All are charged to the households for convenience purpose.	Same as 1951.	Charged to the depositors who receive the service either in the industrial or household sector.	Same as 1960, but are oviated at intersections between financial sectors.	Charged to the current depositors which first receive the services, and the balance charged to the industrial or household sector. But the services are again oviated between financial sectors.	Same as 1970, but are not shown in the final demand sectors. Charged to intersections between financial sectors.
Re-exports and re-imports	Included in exports and imports sectors.	Same as 1951.	Excluded from the exports and imports sectors.	Imports and exports are included to re-exports and re-imports sectors.	Re-exports and re-imports of vessels are excluded with the balance treated as unidentified items.	Same as 1970.
Custom duties	Inclusive of indirect taxes is treated in the household sector.	Same as 1951.	The "(less) Custom duties" sector is set up in final demand and treated minus input at each import items. Import items are broken down in detail and compiled respectively.	Same as 1960.	Same as 1960.	Same as 1960.

1980	1985	1990	1995	2000	2005	2011	2015
Row541×Column406	Row529×Column408	Row527×Column411	Row519×Column403	Row517×Column405	Row520×Column407	Row518×Column397	Row509×Column391
Same as 1955, but production for farm and fishery households is computed irrespective of self-product or selling.	Same as 1980.	Same as 1980.	Same as 1980.	Same as 1980.	Same as 1980.	Same as 1980.	Same as 1980.
Same as 1960.	Same as 1960.	Same as 1960.	Same as 1960.	Those are output to the newly created "Reuse and recycling" sector, and further output through the sector to respective input sectors.	Only costs related to collection and processing of scraps and by-products are counted towards the "Reuse and recycling" sector. Counted based on the negative input method as in Input-Output Tables up until 1995.	Same as 2005	Same as 2005
Same as 1960.	Same as 1960.	Same as 1960.	Same as 1960.	Same as 1960.	Same as 1960.	Same as 1960.	Same as 1960.
Same as 1975.	Same as 1975.	Same as 1975.	Same as 1975.	Same as 1975.	Same as 1975.	Same as 1975.	Competitive import type table (partial imports posted separately are integrated)
Same as 1960.	Same as 1960.	Same as 1960.	Same as 1960.	Same as 1960.	Same as 1960.	Same as 1960.	Same as 1960.
Same as 1975.	Same as 1975.	Same as 1975.	Same as 1975. Medical service is treated as the industrial sector.	Same as 1995.	Same as 1995.	Same as 1995.	Same as 1995.
Same as 1975.	Same as 1975.	Same as 1975.	Same as 1975. The final government consumption expenditure divides into individual and collective expenditure respectively.	Same as 1995. Social overhead capital consumption incorporates.	Same as 2000.	Same as 2000.	Same as 2000.
Same as 1975. Lending and imputed interest are treated in intermediate consumption of industrial sectors.	Same as 1975.	Same as 1975. Housing loan are treated in intersection between housing charges and financial sector.	Same as 1990. nonbank financing of household estimates and records in Activities not elsewhere classified.	Same as 1995.	Same as 1995.	The imputed interest method for Financial service was amended, and the FISIM (Financial Intermediation Services Indirectly Measured) method was introduced.	Same as 2011.
Same as 1970.	Same as 1970.	Same as 1970.	The value of imports and exports of vessels are excluded. With the exception of the value of vessels, the re-exports and re-imports value are deducted from the exports value and imports value respectively.	Same as 1995.	Same as 1995.	Same as 1995.	Same as 1995.
Same as 1960.	Same as 1960.	Same as 1960.	Same as 1960.	Same as 1960.	Same as 1960.	Same as 1960.	Same as 1960.

CHAPTER Ⅲ
THEORY OF INPUT-OUTPUT TABLES

Since the 1955 Input-Output Tables, which were the first tables that were compiled based on a joint project by relevant ministries, gradual improvements have been made in Japan's Input-Output Tables, taking into account economic conditions and the actual state of production activities at the points in time when the tables are compiled, as well as consistency with the SNA and Japan Standard Industrial Classification. Under the Statistics Act, Input-Output Tables are designated as "fundamental statistics," or particularly important statistics that make up the core of official statistics (July, 2010).

In this chapter, explanations are provided on basic theories related to the "Basic transaction Table," which is the core of various statistical tables that are compiled as Input-Output Tables.

1 Period Covered

The Basic Transaction Table covers production activities and transactions involving goods and services conducted for one year from January to December (calendar year).

In principle, the Basic Transaction Table has been compiled every five years (years ending with either a 0 or 5) since their first publication in 1955. However, the Basic Transaction Table that was compiled last time was implemented as an exception with 2011 as the target year since the target year of the important basic data, the Economic Census for Business Activity, was 2011. This time, it returns to following the conventional principle and the Basic Transaction Table is compiled with 2015 as the target year, as the relevant census targets 2015.

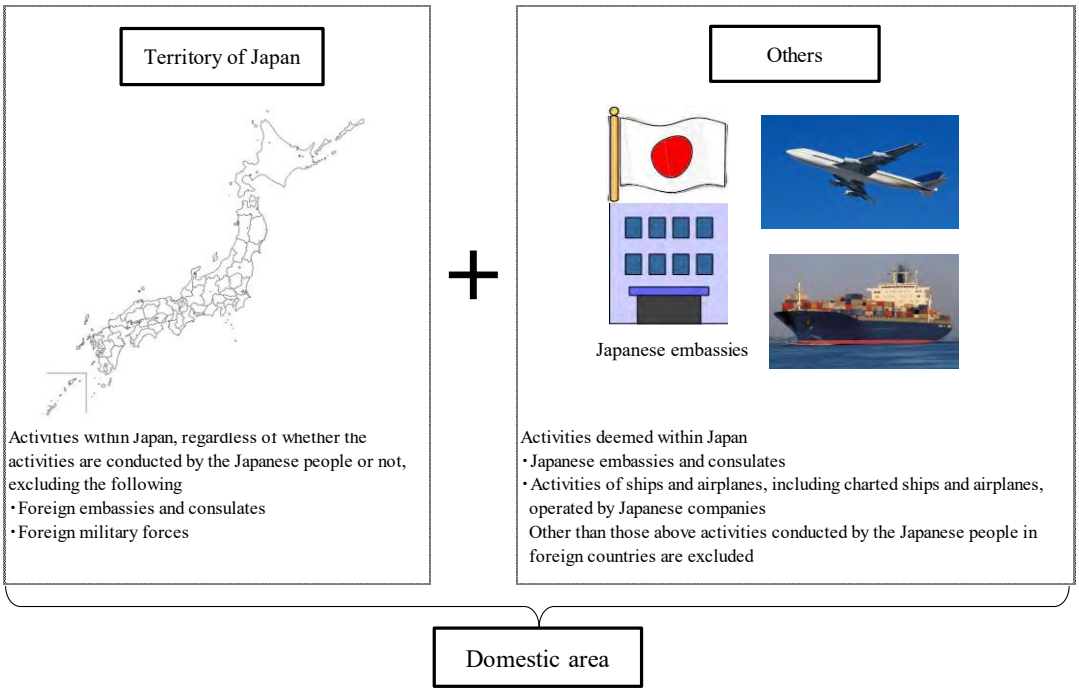
2 Geographical Coverage

(1) Domestic Concept and National Concept

In terms of perception of geographical scope when compiling the Basic Transaction Table, there is "domestic concept" and "national concept."

Simply put, the domestic concept is a concept where the scope covers economic activities that were carried out within the territory of a given country. For example, although activities of foreign companies that were carried out on Japanese territory are included, activities that were carried out by Japanese companies on foreign territory are excluded. However, although activities carried out by Japanese diplomatic missions are included, activities by foreign

Chart 3-1 Domestic Area in the Input-Output Tables



armed forces and diplomats of foreign governments residing in Japan are not included (see Chart 3-1).

In relation to this, the national concept is a concept that focuses on the residents of a country (the term "national" is sometimes used in the meaning of "people who have citizenship of a given country," but please note that the meaning differs here). "Resident" refers to an individual who has been living within the applicable country for a long period of time, and who is engaged in economic activities of a substantial scope. For example, a Japanese citizen who lives in Japan, foreigner who has been living for a long period of time in Japan, and a Japanese company or organization, or foreign company or organization that is conducting activities in Japan are included as residents, as well as Japanese citizens who have only been living abroad for a short period of time. On the other hand, foreigners who are living in Japan for the purpose of studying abroad and medical treatment, etc. are not included in as residents.

(2) Handling of the Basic Transaction Table for Japan

Since the past, the domestic concept has been used for the Basic Transaction Table for Japan, and production activities and transactions that occurred in Japan are subject to recording. However, for only "Consumption expenditure of households," the national concept is represented and consumption overseas by resident households is recorded as "(less) Imports (direct purchase)," while consumption in Japan by non-resident households is recorded as "Exports (direct purchase)." Based on this it is possible to convert "Consumption expenditure of households" to the domestic concept.

3 Timing for Recording

(1) Accrual Basis and Cash Basis

In principle, production activities and transactions are recorded on an accrual basis in the Input-Output Tables, meaning that they are recorded at the time a transaction occurs. With the cash basis, on the other hand, production activities and transactions are recorded at the time earnings from and payments for production activities are actually paid. The equivalence of two aspects in the Input-Output Tables cannot be obtained on a cash basis (the respective totals of the gross added-value sector and the final demand sector (imports deducted) do not correspond) due to a time lag in the flow of accrual and distribution of earnings from production activities. However, the equivalence of two aspects in the Input-Output Tables can be obtained by recording on an accrual basis.

(2) Handling in the Basic Transaction Table for Japan

To maintain the equivalence of two aspects, accrual basis has been used since the past. Specific points in time of recording are as follows.

[1] Production activities and transaction for goods

Production activities for goods are recorded at the time they are produced, while those for services are recorded at the time they are performed during the year.

[2] Transactions for intermediate products

Transactions for intermediate products are recorded as the intermediate transaction value at the time intermediate products are actually consumed in each column sector during the year (Note).

(Note) These are handled as "stocks" up until the point when column sectors are used in actual production after intermediate products are purchased.

[3] Output to the final demand sectors

i) In the output to the final demand sectors, consumption expenditure, including consumption expenditure outside household, private consumption expenditure, and consumption expenditure of general government, is recorded at the time bargains are concluded, even in cases in which deliveries of applicable goods are delayed.

ii) Gross domestic fixed capital formation is recorded at the time of transactions in capital goods.

iii) Output to "Increase in stocks" is recorded at the point in time when the producer or distributor possesses ownership of a product subject to transaction.

iv) Exports (ordinary trade) and imports (ordinary trade) are recorded at the time of customs clearance.

[4] Goods with a production period of one year or more (long-term products)

i) Goods with a production period of one year or more (long-term products) are recorded as stocks under the domestic production until the ownership is transferred to the final users. The production value of finished goods of such long-term products is recorded as value of finished goods minus value of semi-finished goods and work in progress.

ii) For capital production for the own account (production of goods and intellectual asset products for personal consumption), basically even in the case of the goods in progress, the progress levels for a period of one year are recorded as the "Gross domestic fixed capital formation," as the final users retain ownership. However, in the case of buildings, progress levels in constructions shall be recorded as domestic production in the "Gross domestic fixed capital formation" even if the ownership has not been transferred.

iii) This principle is applied to animal growths: animals providing services (animals for draft, breeding or races, wool, fruit-trees, mulberry, tea leaves, etc.) are recorded in the "Gross domestic fixed capital formation" and growths rendered by other specialized producers are recorded in the "Increase in stocks of semi-finished goods and work-in-progress."

[5] Services with a production period of one year or more

Services with a production period of one year or more are recorded as produced when the services are offered (completion of production), therefore no stocks are recorded

4 Units of Assessment

The Basic Transaction Table is a record of the actual state of production activities and transactions that were carried out over a year. In assessing the magnitude of such activities and transactions, there are two methods of assessment—one that is based on numerical quantities, and another that is based on monetary amounts.

Goods have a specific unit of quantity. The valuation of each transaction based on the unit of quantity would allow us to perform a quantitative input-output analysis based on production technologies, free from seasonal fluctuations in prices and regional differences. However, many services do not have specific units of quantity. The same is true of goods in the sector composed of detailed items, as not all items in one sector (row) have a uniform unit of quantity. In addition to the above, calculation based on a uniform unit of quantity is impossible in the column sector, in which a wide variety of raw materials is entered as inputs.

Therefore, the "monetary term" is a common criterion for the valuation of the scale of each transaction activity in compilation of the Basic Transaction Table. Furthermore, to supplement the Basic Transaction Table in monetary terms, a "table on the value and quantity" of selected goods is compiled as a supplementary table.

5 Sector Classification

(1) Concept of Sector Classification

Although various economic activities are carried out in this world, in order to express them in the form of the Basic Transaction Table, it is necessary to categorize economic activities into a given number of items. These items are called "sectors."

(2) Principles for Sector Classification

[1] Classification of units of products and classification of units of production activities

i) In the Basic Transaction Table for Japan, row sectors indicate the intended purpose and sales channel composition of products that were produced over the course of a year. Thus, in principle, classifications are made based on product classifications. On the other hand, column sectors indicate the cost composition for each production activity, and in principle, classifications are made in "units of production activities," or on an activity basis. There are many sectors where a single product corresponds to a single activity.

ii) Classifications based on units of production activities are classifications that focus on similarities with input structure, which is represented based on the input coefficients.

Accordingly, in classifications based on units of production activities,

(a) Same products that are produced using the same production technology are classified in the same sector, regardless of the industry in which they were produced.

(b) On the other hand, if the production technology differs even for the same product, the products are classified in separate sectors (for example, thermal power and water power).

(c) If multiple products are produced within the same business site, allocation to multiple sectors is possible depending on differences in production technology. This point differs from the concept of classifying in the Japan Standard Industrial Classification,

where business sites that carry out multiple economic activities are classified depending on its main economic activity.

[2] Standards for sector classifications

As described above, in the Basic Transaction Table, row sectors are classified in units of products, and column sectors are classified in units of production activities. However, for new establishment, separation and integration of sectors, and changes such as to the concept, definition and scope, classification is carried out taking into account the similarities of the input structure and output structure, magnitude of domestic production and total demand, the latest state of the Japan Standard Industrial Classification, time-series nature, state of maintenance of estimation materials, etc. each time Input-Output Tables are compiled.

[3] Correspondence relationship between row sectors and column sectors

Many of the row sectors and the column sectors for endogenous sectors correspond to each other 1-on-1.

However, in cases such as with petroleum refining where multiple products that differ in terms of both unit price and intended use are produced from the same production process, or in cases such as industry machinery where multiple products with different unit prices and functions are produced by consuming raw materials that were purchased commonly at a single business site, row sectors are divided by product for a single column sector.

At the same time, as with electricity, when the same product (in this case, electricity) is produced from different production facilities and production processes such as thermal power, water power, etc., the column sector is divided based on the production facility and production process, and the row sector is organized into a single sector.

As a result, in the basic sector classification for the 2015 Input-Output Tables, there are more row sectors (509 sectors) than column sectors (391 sectors) (in the Basic Transaction Table, which is based on integrated classifications; the table is one where a single row sector corresponds to a single column sector).

(3) Transactor-Based Production Activity Classification

[1] Definition of transactor-based production activity classification

Many of the products that are subject to recording in the Basic Transaction Table are "goods and services that are produced for the purpose of being sold in the market at a price where the costs spent in their production are recovered" and the production/supply entities of these products are entirely "market producers." However, in the Basic Transaction Table, in addition to these, the following goods and services supplied by the general government and private non-profit institutions serving households are recorded as one of the "products":

i) Prices that are not commensurate with the costs, or goods and services that are provided free of charge

ii) Goods and services that are not sold on the market are subject to recording as one of the products.

In the Basic Transaction Table for Japan, these various products are classified as basic sector classification. In basic sector classification, the principle is to classify based on the difference of products for row sectors and the difference of production structures for column sectors, or in other words, units of production activities (activity basis). If left as is, differences in the transactor-based production/supply (i.e., the general government, private non-profit institutions serving households, and market producers) for the product are not taken into consideration.

Thus, starting with the 1975 Tables, classification functions based on "transactor-based production activities" that focus on the transactor-based production/supply of the product were given to basic sector classifications, as part of approaches to the SNA indicated by the United Nations (68SNA at the time), and remain as such to this day.

Concretely, adding a "**" or "*" to the end of the name of a basic sector classification serves as an index for classification of transactor-based production activities. Through this, basic sector classifications are considered as having classification functions based on the transactor-based production activities, rather than primarily being classifications based on products or units of production activity.

[2] System of transactor-based production activity classification

In the system of transactor-based production activity classification that was used in the 2015 Tables, such activities are broadly divided into the following three categories as shown in Chart 3-2.

i) Non-market producers (general government)

⇒ "**" is added to the end of the basic sector classification name

ii) Non-market producers (private non-profit institutions serving households)

⇒ "*" is added to the end of the basic sector classification name.

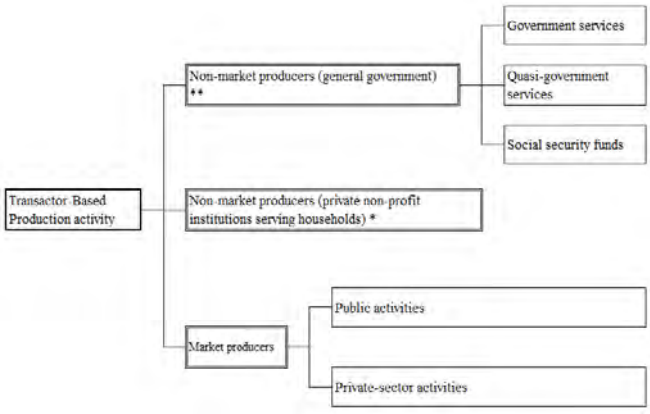
iii) Market producers

⇒ No symbol

(Note) Previous to the 2011 Table, as with the "Classification by economic activities" in the System of National Accounts, the transactor-based production activity classification system was generally divided into three sections, namely "Producers of government services activity," "Producers of private non-profit services for households," and "Industries." However, based on the revision of the standards for the System of National Accounts conducted in 2016, such classification, in light of economic activities, was abolished and the section names in the transactor-based production activity classification were established.

Note that the classification system other than the section names has not changed from the 2011 Table.

Chart 3-2 System of Transactor-Based Production Activity Classification



Among these, with regard to non-market producers (general government), the subcategories of "Government services," "Quasi-government services," and "Social security funds" (Note) are further established. For market producers, the subcategories of "public activities" and "private-sector activities" are established.

An overview of these categories is described below.

(Note) With regard to school meals, although they are something that are fundamentally implemented by educational institutions, the actual state is one where there are cases where school meals are directly implemented by educational institutions, and other cases where they are entrusted to an external institution such as a food service center. However, if classifying based on the institution that actually carries out the service, not only will interferences arise, in terms of estimations, there is also the possibility of confusion arising in terms of usage. As a result, in the Basic Transaction Table, "School lunch (public institution) **" and "School lunch (private) *" are used, indicating that school meals are categorized based on the transactor-based production activity classification for educational institutions, which are the institutions that should fundamentally be implementing school lunches.

[3] Non-market producers (general government)

i) "Non-market producers (general government)" refer to those who fulfill the requirements in the table below, according to international standards.

Category	Requirement
"Social security funds"	(a) There is imposition/control by the government (b) Covers the entire society or a specific portion of society (c) There is a system of mandatory enrollment/burden
Non-market producers (general government) other than "social security funds"	(a) Does not correspond to social security funds (b) Does not correspond to financial institutions (c) There is no marketability in the activities contents (d) There is ownership/control by the government

Non-market producers (general government) other than social security funds also include some activities of incorporated administrative agencies, special administrative corporations, etc., in addition to activities carried out generally by administrative agencies.

ii) Activities of "Non-market producers (general government)" include the two services of "collective services" and "individual services," from the perspective of receivers of benefits and collection of costs.

[Collective services] Refers to services for the entire society, such as defense, legal system, maintenance of social order, lawmaking, and general administrative activities. As they were services for the entire society, they are provided based on revenue from tax and other government revenue.

[Individual services] Refers to services where citizens receive benefits individually, such as education and health and hygiene. There are cases where some costs are collected depending on the services that are provided.

iii) In the Basic Transaction Table for Japan, "Non-market producers (general government)" other than

social security funds is further categorized into "government services" and "quasi-government services" as unique categories that do not exist in the SNA, for the purpose of analysis. The contents and concept behind ranking of each category are as follows.

[Government services] refers to services directly provided by the government and incorporated administrative agencies and special administrative corporations, etc, and there are no sectors that provide similar services in the "market producers."

[Quasi-government services] refers to services directly provided by the government and incorporated administrative agencies and special administrative corporations, etc, although there are sectors that provide similar services in the "market producers." However, prices or charges are set at much lower levels than actual costs for social and public services.

For example, social and public services such as health care, education, and culture, for which prices and charges are set at a much lower level than actual cost, are included in this category.

In cases where conditions such as those given below are fulfilled, they can be classified as "quasi-government services," even if there are no sectors where services similar to "market producers" are provided (For example, "Sewage disposal").

(a) The input and output structures differ significantly from "Public administration (central)" or "Public administration (local)".

(b) There exist reasonable classifications other than public administration in the Japan Standard Industrial Classification.

[4] Non-market producers (private non-profit institutions serving households)

"Non-market producers (private non-profit institutions serving households)" refers to those who fulfill requirements (a) to (d) below, based on international standards.

(a) Does not correspond to social security funds, nor financial institutions
(b) There is no marketability in the activities contents
(c) There is no ownership/control by the government
(d) Services are provided exclusively to households

(Note) Governments and independent administrative agencies, etc. are classified by every institution; however, it is practically difficult to determine marketability etc. of each of many non-profit organizations. Thus, among labor unions, political parties, religious organizations, private schools (except hospitals), etc., those excluding individuals, companies, the national government, offices of public enterprises and local public organizations, namely, "corporate bodies other than companies" and "organizations which are not corporate bodies" are classified in a range of "private non-profit institutions serving households."

[5] Market producers

i) General theory

"Market producers" mainly refers to production activities and transactions of goods and services that are carried out with the purpose of selling them on the market at a price that covers production costs (In the standards of the 2008 SNA, they are considered as having marketability if sales equal more than 50 percent of production costs).

Among these activities and transactions, in cases where ownership or control by the government is recognized, such as the government owning the majority of voting rights pertaining to the activity, are classified as "public activities," and other cases are classified as "private-sector activities." Among these, "public activities" correspond mainly to activities such as of incorporated administrative agencies and special administrative corporations, etc.; financial intermediation activities and non-financial activities with marketability, among special accounts of the central government and accounts of publicly owned entities of local governments; and those where a relationship with ownership or control by the government exists.

ii) In addition to i) above, the following is also handled as "market producers."

(a) Even when it is considered that rent does not generally arise, such as when a person owns his/her own house, etc., imputation is carried out by deeming that the resident is paying rent, in the same way as with rental housing, and such cases are handled as "Market producers" ("House rent (imputed house rent)").

(b) Activities where an agricultural, forestry, and fisheries household produces agricultural, forestry, and fisheries products for personal consumption are also handled as "Market producers."

(c) With regard to various economic organizations, burden charges and membership dues from relevant

Table 3-1 Development of the Number of Sector Classifications

	Basic sector classification		Minor Aggregated Classification	Medium Aggregated Classification	Major Aggregated Classification	Model
	Row	Column				
1955	310	278	122	54	—	—
1960	453	339	153	56	—	6
1965	447	341	156	56	—	10
1970	541	407	160	60	—	10
1975	554	407	165	61	—	13
1980	541	406	164	72	28	13
1985	529	408	183	84	29	13
1990	527	411	187	91	32	13
1995	519	403	186	93	32	13
2000	517	405	188	104	32	13
2005	520	407	190	108	34	13
2011	518	397	190	108	37	13
2015	509	391	187	107	37	13

corporations, etc. are treated as payments for services provided by the said organization, and are handled as “Market producers” (membership-based business associations).

(4) Types of Sector Classifications and Classification Codes

[1] Structure of sector classifications

i) With regard to sector classifications for when publishing the Basic Transaction Table for Japan, the “basic sector classification” serves as the most detailed classification, and the following were established as “aggregated classifications,” or an integration of these classifications.

・Minor aggregated sector classification
・Medium aggregated sector classification
・Major aggregated sector classification

In addition, as an explanatory model of the Input-Output tables, a classification that further consolidates the major aggregated sector classification (13-sector classification in the 2015 Tables; referred to as “model” when compiling Input-Output Tables) is also established.

ii) In general, by carrying out estimations based on classifying sectors in a more detailed manner, highly accurate results are obtained, and it has also been considered that the input coefficients also become more stable for each sector. However, due to limitations, etc. with the materials used in estimations, there are limits to making classifications more detailed in order to ensure a certain level of accuracy. Based on such limitations, in recent years, the number of basic sector classifications in the Basic Transaction Table for Japan has been approximately 500 row sectors and approximately 400 column sectors, as shown in Table 3-1.

Estimation of inputs and outputs, and work for balancing numbers are carried out based on basic sector classifications. In order to estimate domestic production, which serves as the basis for estimating inputs and outputs, “detailed item classification” is established.

iii) For aggregated classification, endogenous sectors are set up so that there is a square matrix with the same number of row sectors and column sectors (the row sectors and column sectors correspond one-on-one), due to mathematical restrictions in calculating various coefficients such as the inverse matrix coefficients.

iv) In addition to the classifications in i) and ii) above, there is the term “competitive sectors,” as sectors that are used particularly in the “Table on Scraps and by-products,” which is one of the supplementary tables..

[2] Classification codes

The classification codes for sector classifications used in representation are established based on the digits below.

・Major aggregated sector classification : 2-digit
・Medium aggregated sector classification : 3-digit
・Minor aggregated sector classification : 4-digit
・Basic sector classification : 6-digit(column), 7-digit(row)

[3] Special codes

For users’ convenience, the following special classification codes (refer to item 10 in this section) are used for such special treatments as the output and input of scrap and by-products, as well as for trade margins and domestic freight. The following codes are indicated after the last (the 6th or 7th) digit of the basic sector classification code

(the codes are referred to as “2 attached” or “3 attached,” for example).

- Scrap input …… 2
- Scrap output …… 3
- By-product input ‥ 4
- By-product output 5
- Trade margin …… 6
- Domestic freight ‥ 7

(5) Final Demand Sectors and Gross Value Added Sectors

[1] As shown in Table 3-2, the final demand sectors and gross value added sectors, which are exogenous sectors of the Basic Transaction Table, correspond, for the most part, to each of the items in the System of National Accounts compiled by the Cabinet Office, despite differences in names and excluding consumption expenditure outside households.

[2] Consumption expenditure outside households

Consumption expenditure outside households is also known as “business consumption.” A breakdown of business consumption, such as lodging expenses and daily allowances, entertainment allowances, and welfare expenses, is entered as an item of consumption expenditure outside households in the final demand sector (column) by goods and services.

On the other hand, lodging expenses and daily allowances, entertainment allowances, and welfare expenses are recorded by column sector in “Consumption expenditure outside households (row)” in gross value added sectors. In other words, the amounts that were spent by each production sector (column sector) towards these expenses are recorded.

In the System of National Accounts, based on international standards, consumption expenditure outside households is classified as an endogenous sector (intermediate consumption, intermediate input), an expenditure that is necessary to carry out production activities, and is not included in the exogenous sectors (final demand sectors and gross value added sectors).

However, in the Basic Transaction Table for Japan, expenditures that are the equivalent of consumption expenditure outside households are considered as (a) allocated from part of operating surplus, rather than being directly necessary for production activities, and (b) not being input at a given proportion in carrying out production activities, similar to general raw materials. Based on reasons such that making these exogenous will make input coefficients (production structure in endogenous sectors) more stable, they are oriented as exogenous sectors.

6 Basic Structure of the Basic Transaction Table

(1) Price Valuations and Table Formats (Input-Output Table at Producers’ Prices and Input-Output Table at Purchasers’ Prices)

[1] Valuation methods for prices

As described in 4 above, in the Basic Transaction Table for Japan, the size of each transaction is recorded using “monetary amount,” which is a unit of measurement common to products. When doing so, the size and manner of representation of transaction amounts changes depending on the stage/price at which the “monetary amount” is perceived.

Not all goods of the same type or quantity are traded at the same price in the actual economy. The prices of commodities vary according to factors such as regional and seasonal fluctuations, as well as differences in the structure of supply and demand or transaction patterns.

For example, the shipment prices of producers and purchase prices of consumers often differ depending on expenditures in the distribution stage. In addition, there are also cases where prices for the same product differ depending on whether the target is large user or small user.

As such, there are two perspectives as shown below with regard to price valuation when recording in the Basic Transaction Table.

(a) Using either “actual prices” or “unified prices”

“Actual prices” is a method for evaluating prices at which transactions actually occurred, while “unified prices” is a method for evaluating based on separately establishing unified prices, regardless of the transaction destination or transaction format.

(b) Using either “producers’ prices” or “purchasers’ prices”

“Producers’ prices” is a method for evaluating using shipment prices, while “purchasers’ prices” is a method for evaluating using prices at the final stage of transactions.

Between these, only tables based on actual prices with regard to (a) are compiled in Japan. Thus, for the Basic Transaction Table, two types are compiled:

- Input-output tables at producers' prices based on actual prices
- Input-output tables at purchasers' prices based on actual prices

The former is referred to as "Input-Output Tables at producers' prices," while the latter is referred to as "Input-Output Tables at purchasers' prices."

The reason why the valuation method based on unified prices is not used is because while the data on transactions obtained from primary statistics is an accumulation of actual prices, it is necessary to separately solve the issue of "how to establish uniform prices" in order to make valuations based on uniform prices.

[2] Input-Output Table at producers' prices and Input-Output Table at purchasers' prices

i) Formats of the two tables and differences between them

The difference between the two prices can be ascribed to the fact that the purchasers' price is inclusive of such distributive costs as trade margins and domestic freight, while the producers' price is not.

We compile both types of tables as the Basic Transaction Tables for Japan. In the Input-Output Table at producers' prices, each transaction is recorded at the producers' delivery price. Trade margins and domestic freight, incurred before purchasers buy products, are added at the intersection of the purchasers' sector (column), the commerce sector (row), and the transport sector (row) (see Chart 3-3[2]).

In the Input-Output Table at the purchasers' prices, each transaction is recorded at prices including trade margins and domestic freight. As a result, only "Cost trade margins," and "Cost transport margins" (see 10 (2) in this chapter) are recorded in the row sector for commerce and transport. Trade margins and domestic freight are not recorded in the row sector for commerce and transport.

In the Basic Transaction Table for Japan, the basis for domestic production is valuated at producers' prices based on actual prices, as will be described in 7 (2) hereinafter. Thus, in each row sector for Input-Output Tables at purchasers' prices, it is ensured that domestic production is at producers' prices by excluding trade margins and domestic freights in exogenous sectors (see Chart 3-3[3]).

ii) Characteristics of use

Use of the Input-Output Table at producers' prices and the Input-Output Table at purchasers' prices has the following features.

It is possible to understand the composition of the manufacturing costs in each column sector, as the Input-Output Table at purchasers' prices is recorded at prices that are nearly equal to the prices of the form of actual transactions.

On the other hand, the amount of domestic freight and trade margins differs not only depending on the type of goods and services, but also, in many cases, depending on transaction patterns even if goods and services are identical. Thus, the amount of domestic freight and trade margins is unstable and consequently, to stabilize input coefficients (as technical coefficients) by making the input coefficients as close as possible to the physical quantities, it is more convenient to use the producers' price as a basis for calculation in the Basic Transaction Table.

Even in the Input-Output Tables for Japan, the input coefficient tables and inverse matrix coefficient tables are compiled from Input-Output Tables at producers' prices, and analysis of Input-Output Tables is often carried out using Input-Output Tables at producers' prices as a basis.

Table 3-2 Input-Output Tables and Correspondence to National Accounts

Input-Output Tables	National Accounts (Cabinet Office)
Consumption expenditure of households	(Classified into the endogenous sectors)
Consumption expenditure(private)	Private final consumption expenditure
Consumption expenditure of households	Final consumption expenditure of households
Consumption expenditure of private non-profit institutions serving households	Consumption expenditure of private non-profit institutions
Consumption expenditure of general government	Final consumption expenditure of government
Collective consumption expenditure of central government	Collective consumption expenditure of central government
Collective consumption expenditure of central government (CFC of capital fixed capital)	Individual consumption expenditure of central government
Individual consumption expenditure of central government	Collective consumption expenditure of local government
Individual consumption expenditure of central government (CFC of capital fixed capital)	Individual consumption expenditure of local government
Collective consumption expenditure of local government	
Collective consumption expenditure of local government (CFC of capital fixed capital)	
Individual consumption expenditure of local government	
Individual consumption expenditure of local government (CFC of capital fixed capital)	
	Gross domestic fixed capital formation
	Gross domestic fixed capital formation
Gross domestic fixed capital formation (public)	public sectors
	General government
	Plant and equipment
	Dwellings
Gross domestic fixed capital formation (private)	Private sectors
	Plant and equipment
	Dwellings
Increase in stocks	Changes in inventories
Increase in producers' stocks of finished goods	Private sectors
Increase in stocks of semi-finished goods and work-in-process	Public corporations
Increase in dealer's stocks of goods	General government
Increase in stocks of raw materials and supplies	
Exports	Exports of goods and services
Exports (ordinary trade)	Goods
Exports (special trade)	Transport, travel, telecommunication, insurance, others
Exports (direct purchase)	(Recorded once again) Direct purchase
(less) Imports	Imports of goods and services
Imports (ordinary trade)	Goods
Imports (special trade)	Transport, travel, telecommunication, insurance, others
Imports (direct purchase)	(Recorded once again) Direct purchase
(less) Custom duties	[Included in "the tax on production and imported goods" of the value added]
(less) Commodity taxes on imported goods	[Included in "the tax on production and imported goods" of the value added]

Notes: Encircled items in the I-O Tables correspond to the items involving final demand under the major aggregated sector classification.

Input-Output Tables	National Accounts (Cabinet Office)
Consumption expenditure outside households (row)	(Classified into the endogenous sectors)
Lodging expenses and daily allowances	
Social expenses	
Welfare expenses	
Compensation of employees	Compensation of employees
Wages and salaries	Wages and salaries
Contribution of employers to social insurance	Employers' actual social contribution
Other payments and allowances	Employers' imputed social contribution
Operating surplus	Operating surplus and mixed income
Consumption of fixed capital	Consumption of fixed capital
Consumption of fixed capital	
Consumption of fixed capital (Social overhead capital consumption)	
Indirect taxes (except custom duties and commodity taxes on imported goods)	Taxes on production and imports
(less) Current subsidies	(less) Subsidies

Notes: Encircled items in the Input-Output Tables are elements of the gross value added corresponding to the major aggregated sector classification.

[Appendix] Basic price

While the Basic Transaction Table for Japan calculates the domestic production amount using the "producers' price," the SNA has been recommending that the transaction value be calculated using the "basic price" since the establishment of 68SNA.

The basic price is the producers' price minus commodity taxes such as consumption, tobacco, liquor, and other indirect taxes, plus subsidies.

The use of the "basic price" is recommended because when commodity taxes are included in the transaction value, the commodity tax rates are not necessarily stable and are subject to variations depending on factors other than the production structure.

However, in the Basic Transaction Table for Japan, tables based on basic prices have not been compiled thus far due to data limitations, etc.

(2) Handling of Consumption Tax

Among the value-added taxes, individual indirect taxes such as liquor tax and tobacco tax, where specific goods and services are subject to taxation, are indicated as-is as input costs, as the taxation amount (= amount of tax payment) is imputed to the price of the product, and the good or service is sold at a price inclusive of tax, regardless of destination between intermediate demand or final demand.

In relation to this, consumption tax is an indirect tax of a multi-stage taxation method that is imposed at all transaction stages that are carried out domestically, in principle. In addition, as tax is not accumulated during the stage of intermediate transactions, the purchase-related taxes are excluded. In other words, the tax that is paid by the person who purchased the product is calculated as a subtraction of the tax that was paid in the prior stage of distribution from the tax incurred on the sales amount.

As a result, with regard to how consumption tax is handled in the Basic Transaction Table, there are different concepts—a method where the monetary amount that actually moved is evaluated as is, and another method of valuation based on the monetary amount that is recognized as being original costs.

In the Basic Transaction Table for Japan, due to the benefit of not being able to read the magnitude of the actual transaction amount, the method of displaying the sales/purchase price as is at the distribution stage (tax-inclusive display) has been adopted since the consumption tax system was introduced. In the transaction amount, the amount that is subtracted in calculations at the tax payment stage is also included and recorded.

(3) Treatment of Imports and Table Types

[1] Competitive import type table and non-competitive import type table

There are two methods for treating imports in the Basic Transaction Tables. One is the "competitive import type table," in which imports and domestic products are treated as identical if they are the same type of goods (see Chart 3-4[1]). The other is the "non-competitive import type table," in which imports and domestic products are treated differently despite the fact that they are the same type of goods (see Chart 3-4[1]).

[2] Table type for Japan

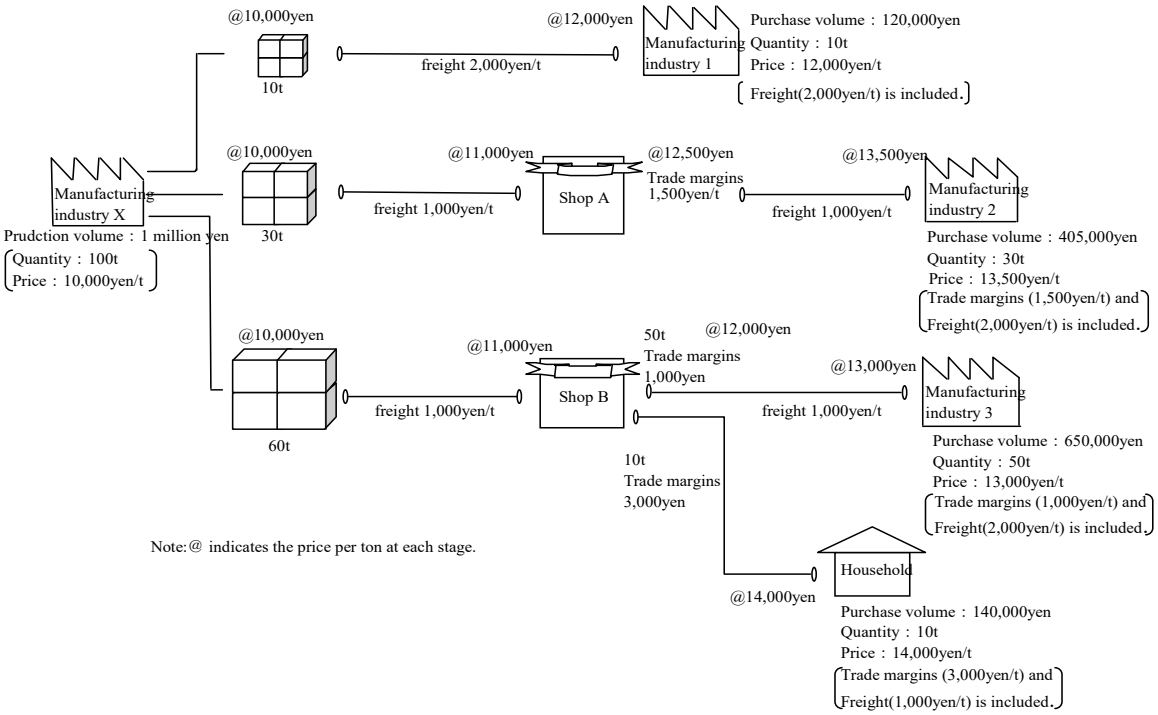
The Basic Transaction Table for Japan is the "competitive import type table," in which the input and output of domestic products, as well as imports, are treated collectively.

However, the above table can easily be converted into a non-competitive import type table, as the import value of each transaction is recorded as a breakdown item.

(Note) Until the compilation of the 2011 Table, a part of imported goods (wheat, soybeans, etc.) had been recorded separately under the row sector for imported goods; therefore, the Basic Transaction Tables for Japan is accurately described as a "mixed-type table of competitive and non-competitive imports."

Chart 3-3 Input-Output Table at Producers' Prices and Input-Output Table at Purchasers' Prices

［1］Flow of price setting－temporary example－



[2] Input-Output Table at Producers' Prices — Model —

(unit: 1,000 yen)

		Intermediate demand				Final demand			Total demand	Imports (Less)	Domestic production
		…	Manufacturing Industry 1	Manufacturing Industry 2	Manufacturing Industry 3	… … …	Consumption	Investment	Exports			
Intermediate input	Commodity "X"		100	300	500	0	100	0	0	1000	0	1000
	Commerce		0	45	50	0	30	0	0	125	0	125
	Transport		20	60	100	0	10	0	0	190	0	190
Gross value added												
Domestic production												

Note: This table is based on the figures in Chart 3-3 [1]

[3] Input-Output Table at Purchasers' Prices — Model —

(unit: 1,000 yen)

		Intermediate demand				Final demand			Total demand	Less			Domestic production
		…	Manufacturing Industry 1	Manufacturing Industry 2	Manufacturing Industry 3	… … …	Consumption	Investment	Exports		Imports	Trade margins	Freights	
Intermediate input	Commodity "X"		120	405	650	0	140	0	0	1315	0	-125	-190	1000
			100 +20	300 +45 +60	500 +50 +100		100 +30 +10							
	Commerce		0	0	0	0	0	0	0	0	0	125	0	125
	Transport		0	0	0	0	0	0	0	0	0	0	190	190
Gross value added														
Domestic production														

Note: This table is based on the figures in Chart 3-3 [1]
The trade margins and freights are included in the row for the transaction value of commodity" X."

7 Price Valuation of Domestic Production

(1) Importance of Domestic Production

In a single word, “domestic production” is the total amount of production and transactions for each sector over the course of a year.

Domestic production by sector is a number that is estimated first when carrying out estimation work for the Basic Transaction Table, and inputs and outputs are estimated as its breakdown upon establishing this domestic production amount. As a result, when there is an error in domestic production, it is not only necessary to re-estimate inputs and outputs of its own sector; even inputs and outputs of other sectors are affected, and the accuracy of the entire Basic Transaction Table is influenced. In such a way, domestic production is extremely important as a “control value” for both the row sectors and column sectors of the Basic Transaction table. Based on such a positioning, they are often referred to as “CT,” which is an abbreviation of control totals.

(2) Price Evaluations Related to Domestic Production

In the Basic Transaction Table for Japan, domestic production is fundamentally evaluated using producers’ prices based on actual prices.

Fundamental concepts related to estimation of domestic production for each major sector type are as follows.

[1] Goods

In principle, with regard to goods, domestic production is estimated in the form of “Production quantity × Unit price” for each detailed item classification. When doing so, the factory shipment price is the unit price of products in the manufacturing industry.

Chart 3-4 Tabular Formats According to Handling of Imports

[1] Perfectly Competitive Import Type Table (Model)

	A	B	C	D	Consumption	Investment	Exports	(Less) Imports	Domestic production
A	10	60	30	40	10	0	0	-100	50
B	20	10	50	10	20	15	10	-35	100
C	5	10	5	50	60	40	40	-50	160
D	5	5	20	15	70	30	30	-25	150
Gross value added	10	15	55	35					
Domestic production	50	100	160	150					

Note:The figure in each grid is the total of domestic products and imported goods, except for the figures in the gross value-added sector and the import sector.

[2] Mixed-Type Table of Competitive and Non-Competitive Imports (Model)

	A	B	C	D	Consumption	Investment	Exports	(Less) Imports	Domestic production
A	5	10	20	10	5	0	0	0	50
A (Imports)	5	50	10	30	5	0	0	-100	0
B	20	10	50	10	20	15	10	-35	100
C	5	10	5	50	60	40	40	-50	160
D	5	5	20	15	70	30	30	-25	150
Gross value added	10	15	55	35					
Domestic production	50	100	160	150					

Note:The Imports of Commodity “A” are recorded separately under the row sector, while the total of their domestic products and imported goods are recorded for Commodities “B,” “C,” and “D.”

[3] Perfectly Non-Competitive Import Type Table (Basic Type) (Model)

		A	B	C	D	Consumption	Investment	Exports	(Less) Imports	Domestic production
Domestic	A	5	10	20	10	5	0	0	0	50
	B	10	10	30	10	20	10	10	0	100
	C	5	10	5	40	30	30	40	0	160
	D	5	5	15	15	55	25	30	0	150
Imports	A	5	50	10	30	5	0	0	-100	0
	B	10	0	20	0	0	5	0	-35	0
	C	0	0	0	10	30	10	0	-50	0
	D	0	0	5	0	15	5	0	-25	0
Gross value added		10	15	55	35					
Domestic production		50	100	160	150					

Note:In Japan, a supplementary table (table on imports) enables compilation of the perfectly non-competitive import type table as above for the Basic Transaction Tables.

[4] Non-Competitive Import Type Table (Simplified Type) (Model)

		A	B	C	D	Consumption	Investment	Exports	(Less) Imports	Domestic production
Domestic	A	5	10	20	10	5	0	0	0	50
	B	10	10	30	10	20	10	10	0	100
	C	5	10	5	40	30	30	40	0	160
	D	5	5	15	15	55	25	30	0	150
Imports		15	50	35	40	50	20	0	-210	0
Gross value added		10	15	55	35					
Domestic production		50	100	160	150					

Note:Only the sectoral total of imports is shown. No breakdown by item is included.

For products of industries where the area of the business site is not clear, such as in forestry, gravel quarrying, etc., valuations are made using prices at the market closest to the production site. The transportation cost from the production site to the market is added to domestic production as "Cost transport margins."

[2] Manufacturer-sellers

Manufacturing activities and retail activities are separated, and the respective amounts are recorded in domestic production of the corresponding sector.

[3] Secondhand goods

The prices of secondhand goods are not recorded in domestic product, and only transaction margins are recorded in domestic production of the commerce sector as "Cost trade margins."

[4] Old buildings

The prices of old buildings are not recorded in domestic production. Only the transaction processing fee is recorded in domestic production of the real estate sector.

In cases where old buildings are repaired and sold, the repair costs are recorded in domestic production of "Repair of construction."

[5] Services

Since services often do not have a unit of quantity, the domestic production for each detailed item classification is directly estimated. When doing so, fundamentally, valuation is carried out at the price at which the receiver of the service paid. Services are directly provided by producers to final consumers, and often do not incur trade margins and domestic freights. Thus, for many sectors related to services, the producers' price is equivalent to the purchasers' price.(Note)

(Note) Even for service-related sectors, in some sectors such as "Image information, sound information and character information production (except newspaper or publication)" (since sale of recording media for image and sound contents is included in the activities contents, this portion is subject to trade margins and domestic freights), the producers' price is not equivalent to the purchasers' price.

[6] Commerce

Most of the domestic production for the commerce sector is the trade margins determined based on "sales amount – cost of goods sold," but in addition to this, an amount equivalent to "cost trade margins" is included.

[7] For financing for which imputation has been carried out, insurance, and house rent, see 10(4) below.

[8] Activities of non-market producers (general government) and non-market producers (private non-profit institutions serving households)

Normally, transactions involving commodity are conducted at a price that will compensate for the cost of their production. However, in the actual economic activities, there are commodities provided free of charge or at prices that are too low for their actual cost, such as services provided by non-market producers (general government) and non-market producers (private non-profit institutions serving households).

The Basic Transaction Table includes the activities of non-market producers (general government) and non-market producers (private non-profit institutions serving households), and their domestic productions are calculated based on their total production costs.

[9] Self-produced and self-consumed goods

Self-produced and self-consumed goods, which are intermediate products in the production process that are all self-consumed in the corresponding sector, are, in principle, not recorded as domestic production. The reason is that, if domestic production for each detailed item classification were estimated using shipment-based statistics such as the Economic Census for Business Activity, there would be no method for comprehending the domestic production of self-produced and self-consumed goods. (They are not recorded in the statistics as they are not shipped).

However, even for goods that are consumed immediately in the next production process, such as pig iron and crude steel in the production process for iron and steel, if the input and output structures differ, the products are divided respectively, and recorded in domestic production. When recording, the product price in the market is used as the standard.

For self-produced and self-consumed goods in households, only self-consumption by agricultural, forestry, and fisheries households is handled as "market producers," and thus, only the portion corresponding to this is recorded.

[10] Treatment of Manufacturing Commissioned to Other Establishments

The production value, the intermediate input required for production, and the value added of products in each sector are included in the Basic Transaction Table, regard-

less of whether the products in each sector are manufactured in-house or outsourced.

However, in a sector in which the Economic Census for Business Activity is used as basic data for the estimation of domestic production, only income from the processing of goods other than raw materials is included in the production value of the entrusted industry.

As a result, in sectors where domestic production is estimated using the Census, it is not possible to comprehend the amount of raw materials, etc. related to contract manufacturing.

The domestic production of non-manufacturing industries that consign production (such as the wholesale and retail trade, including trading companies and department stores) are as follows: sales amount minus purchase amount equals margins.

Therefore, the cost of purchased materials required for consignment production is excluded from the intermediate input. As a result, in the production sector for raw materials, the sale of raw materials to such consignors as trading companies for consignment production lose their output destination if no reconciliation is conducted. In the sector for commissioned manufacturing, the domestic production is underestimated while the ratio of the value added is overestimated.

For value of consignment production from the non-manufacturing industry, the domestic production that includes the cost of raw materials is reproduced by multiplying the income from the processing of goods by the reciprocal of the value-added ratio, as based on the following formula.

$$\text{domestic production} = \text{Income by processing goods} \times \frac{\text{Product price}}{\text{Product price} - \text{Cost of raw materials}}$$

Although such handling can be applied in general to the manufacturing industry conceptually, in actuality, it corresponds in particular in relation to textile products. Based on this, the "Notes" for the sector related to fiber fabrics and wearing apparel in "15 Textile products" of Chapter 7, Section 1 include the statement, "The production value includes those products commissioned from non-manufacturing businesses."

[11] Scraps and by-products

Scraps and by-products are, in principle, handled by the "negative input method." Thus, the values of scraps and by-products obtained from using the "negative input method" are not recorded as domestic production. For "Reuse and recycling," scraps and by-products are not input, and only expenditures related to reuse and recycling are recorded.

[12] Plant engineering

For domestic production of plant engineering, which is included in "Miscellaneous business services," only the monetary amount related to engineering services not including construction costs is recorded.

[13] Fluctuations in stocks of semi-finished goods and work in progress

Fluctuations in stocks of semi-finished goods and work in progress are valued at the average of the opening and closing price for that year.

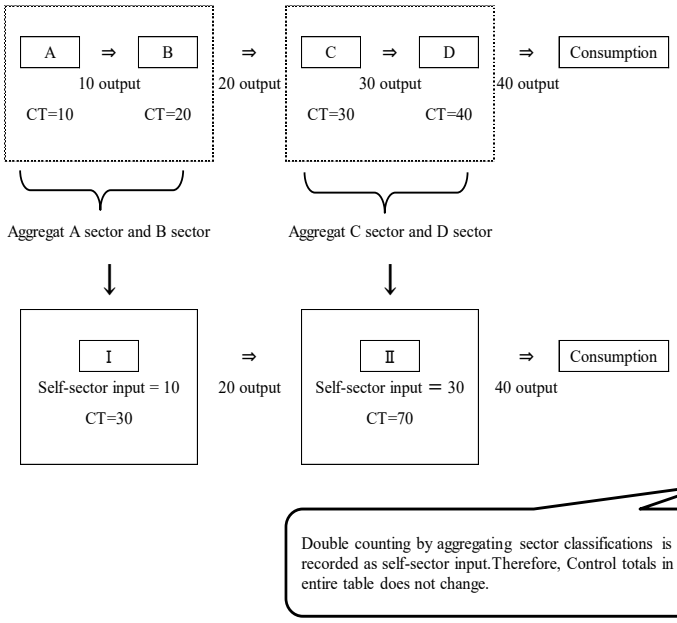
[14] Indirect taxes

Indirect taxes imposed during the process of producing goods are included in the production value of the production sector that pays them. Taxes levied in the process of distribution are included in the domestic production of commerce. (Note that light-oil delivery tax is treated as the tax imposed in the production process, taking into account other petroleum products manufactured by the same production process.) Consumption tax is included in the valuation.

[15] Land transactions

In the valuation of land transactions, the cost of land acquisition is not recorded, and only brokerage commissions and improvement expenses are recorded in their respective sectors of the domestic production.

Chart 3-5 Double Counting by Aggregating Sector Classifications



	A	B	C	D	Consumption	CT
A		10				10
B			20			20
C				30		30
D					40	40
Gross value added	10	10	10	10		
CT	10	20	30	40		

	I	II	Consumption	CT
I	**10**	20		30
II		**30**	40	70
Gross value added	20	20		
CT	30	70		

(3) Double Counting in Domestic Production

[1] In the same basic sector classification

In estimating domestic production, first, domestic production is estimated for the detailed item classifications (approximately 3,400 classifications), and after being tabulated into aggregated items, these are accumulated for each basic sector classification, and then the domestic production for each sector is estimated.

For this reason, if one commodity item in a basic classification sector concerned is also used as a raw material for the production of another commodity item in the same sector, the domestic productions for the raw material will be counted twice.

〔Example of Double Counting in Domestic Production〕

Basic classification : 3412-021 Electric audio equipment

Electric audio equipment	262.8billion yen
Parts, fixtures, and accessories for electric audio equipment	73.5billion yen
Semi-finished goods and work in progress	6billion yen
Total:	336.8 billion yen

(Note) Within the 262.8 billion yen of completed goods, components and semi-finished goods are included; however, when looking at this based on the basic sector classifications, this amount is double-counted, resulting in domestic production of 336.8 billion yen.

[2] Double-counting that crosses over basic sector classifications

In [1] above, double counting of domestic production in the same basic sector classification was described. However, this is the same even for cases where double-counting occurs across basic sector classifications. For example, for domestic production relating to automobiles, not only completed goods but components such as the car body and engine are estimated in different basic sector classifications. Within domestic production of automobiles, which are completed goods, however, domestic production of components that are already recorded in other basic sector classifications are included. In other words, domestic production of automobile components are double counted in both their own sectors and the sector for automobiles, which are completed goods.

[3] Double counting by aggregating sector classifications

Double counting of domestic production occurs even by aggregating sectors. However, if sector classifications are aggregated, duplication of domestic production is only integrated as an input in its own sector at the intersection of the row sector and column sector of the sector that was aggregated, and depending on the aggregation, domestic production for the Basic Transaction table as a whole is not changed (see Chart 3-5).

Chart 3-6 Example of Increase in Stocks

Example of the increase in stocks: a producer of wooden furniture purchased domestic or imported materials through the commerce sector and the stocks increased at each stage in the process of producing wooden furniture.

			Intermediate demand	Final demand			
				Increase in producer's stocks of finished goods	Increase in semi-finished goods and work-in-progress	Increase in dealer's stocks of goods (Notes:1)	Increase in stocks of raw materials and supplies (Notes:2)
Intermediate input	Materials	Domestic				[3]	[5]
		Imported		(Notes:3)		[4]	[6]
	Wooden furniture			[1]	[2]		
	Commerce						
	...						

Notes:1 The increase in goods of dealer's stocks of the commerce is recorded at the intersection of the sector of materials (row) and the increase in dealer's stocks ([3],[4]).

2 The increase in raw material stocks of the wooden furniture is recorded at the intersection of the sector of materials (row) and the increase in raw material stocks ([5],[6]).

3 Imports are not recorded in "Increase in producer's stocks of finished goods" or "Increase in semi-finished goods and work-in-progress."

8 Recording Transactions in Endogenous Sectors and Final Demand Sectors

(1) Endogenous Sectors

Basically, the figures shown in the cell in the endogenous sector of the Basic Transaction Tables represent the transaction values of goods and services conducted between sectors. However, the transaction value recorded in the endogenous sector is the value of consumption required for the year. Therefore, the transaction value (purchase value) for the year is not recorded directly.

(2) Transactions in Capital Goods

[1] Transactions involving "capital goods," that is, goods used for production activities and purchased by any sector are recorded in the gross domestic fixed capital formation of the final demand sector and are not treated as the transaction value of endogenous sectors. (For the details of the range, etc. of capital goods, refer to Chapter VII §2, "7411-00 Gross domestic fixed capital formation (public sector)" and "7511-00 Gross domestic fixed capital formation (private sector)."

〔Transaction of capital goods recorded in endogenous sectors〕

i) Built into machinery:

Elements built into another piece of machinery; normally capital goods

ii) Construction bypass

Capital formation of such capital goods as elevators and boilers that bypass construction activities. In other words, builders purchase these capital goods as intermediate input.

iii) Civil engineering bypass

Such capital goods as bridges and floodgates that require civil engineering work for their construction, despite the fact that they are capital goods. Capital goods treated as items of the construction cost are applicable.

iv) Shipbuilding bypass

Such capital goods as boilers and telecommunication equipment installed in ships are applicable.

[2] The fixed capital matrix, which are compiled as supplementary tables, indicate the amount and type of capital goods purchased by their respective sectors.

[3] The allowance for the depreciation of capital goods in each column sector (the depreciation caused by using the capital goods for the year) is recorded under "Consumption of fixed capital" in the gross value added sectors.

(3) Stocks

Stocks are treated as "Increase in stocks" in Input-Output Tables.

"Increase in stocks" refer to fluctuations in stocks that remain after subtracting the stocks as of the end of the previous year (for example, the end of 2010) from the stocks

as of the end of the year covered (for example, 2011) (year-end balance of year covered minus year-end balance of previous year).

[1] Products that were produced but were not sold to any sectors or were not used for self-consumption during the year covered are recorded in the "Increase in stocks of producers' stocks of finished goods" (refer to [1] in Chart 3-6).

[2] For "Increase in semi-finished goods and work-in-progress," the increase and decrease in goods that are in production and that cannot be sold or shipped without further working on them are recorded, as production activities of the target year (refer to [2] in Chart 3-6).

[3] Commodities that were purchased by wholesale and retail trades but were not sold are recorded in the "Increase in dealers' stocks of goods" In this case, such commodities are recorded at the intersection with the row sector (sector before sale or shipment) to which the commodity originally belongs, rather than being recorded at the intersection with the commerce sector in which it was purchased (refer to [3] and [4] in Chart 3-6).

[4] Raw materials that were purchased but not used in the reference year are recorded in the "Increase in stocks of raw materials and supplies". However, the raw materials are recorded at the intersection of the row sector to which the goods made from the raw materials belong, not at the intersection of the industry (row) sector that purchased the raw materials (refer to [5] and [6] in Chart 3-6).

In addition, stocks of imported goods are divided into the "Increase in stocks of raw materials and supplies" and the "Increase in dealers' stocks of goods".

9 Price Valuation of Exports and Imports

(1) Exported Goods by Ordinary Trade

In the Input-Output Table at producers' prices, the prices of exports in ordinary trade are valued at producers' ex-factory prices, in the same way as in the case of the prices of goods for domestic demand. On the other hand, in the Input-Output Table at purchasers' prices, they are valued at FOB (Free on Board) prices.

As Trade Statistics published by the Ministry of Finance value exports in ordinary trade at FOB prices, their prices are directly applicable in the Input-Output Table at purchasers' prices. However, domestic freight and trade margins for transporting goods from the factory to the ship must be deducted from the FOB prices in the Input-Output Table at producers' prices.

For the treatment of the "Balancing sector" in the 2015 Tables, refer to "8011-01 Exports (ordinary trade)" in Chapter VI for more detail.

(2) Imported Goods by Ordinary Trade

The prices of imports in ordinary trade in the Input-Output Tables both at the producers' prices and at the purchasers' prices are valued at CIF prices (inclusive of freight and insurance: Cost, Insurance, and Freight).

The transaction amount in each cell of the Basic Transaction Table includes not only the amount of the imported good, but the custom duties and commodity taxes on imported goods related to the imported good. As a result, in the Basic Transaction Table, "Imports," "Custom duties," and "Commodity taxes on imported goods" are established as exclusion items in the final demand sectors, to ensure that domestic production of the row sectors matches the total of the breakdown.

(3) Imports and Exports by Special Trade and Direct Purchase

The values of imports and exports by special trade and direct purchase, that is, imports and exports of services and the transaction value of goods that are not recorded by ordinary trade, are estimated based on the Balance of Payments Table.

10 Special Handling in Compiling the Basic Transaction Table

In compiling the Basic Transaction Table, there are some items that are specially handled based on the concept of the SNA as well as in terms of convenience for compiling and analyzing Input-Output Tables.

Explanations on (1) to (7) are given below.

(1) Commerce and Transport Sectors
(2) Cost Trade Margins and Cost Transport Margins
(3) Scrap and By-Products
(4) Imputation
(5) Dummy Sectors
(6) Usership and Ownership
(7) Activities of non-market producers

(1) Commerce and Transport Sectors

We compile the Basic Transaction Tables in order to record the current status of transactions between sectors. Most actual transactions are conducted through the commerce and transport sectors. If actual transactions are recorded in line with this flow of transactions, trade relations between sectors will be very difficult to understand on the Basic Transaction Tables. For example, look at the following flow of commodity transactions that sector "B" purchased Commodity (value: 100) produced by sector "A" through commerce sector

[1] First, Commodity produced by sector "A" is sold to commerce through transport (freight: 10).
[2] The purchase price of commerce is 110.
[3] Next, Commodity is sold to sector "B" through transport (freight: 10) again after commerce adds margins (margins: 20).
[4] The purchase price of sector "B" is 140.

It is very difficult to determine the relationship between A and B in Chart 3-7 (1), which records the above transaction process directly.

To avoid such a complicated indication, trade margins and domestic freight are collectively recorded by demand sector, as if direct transactions were conducted between sectors (for example, between sector "A" and sector "B") without going through the commerce and transportation sectors in the Input-Output Tables.

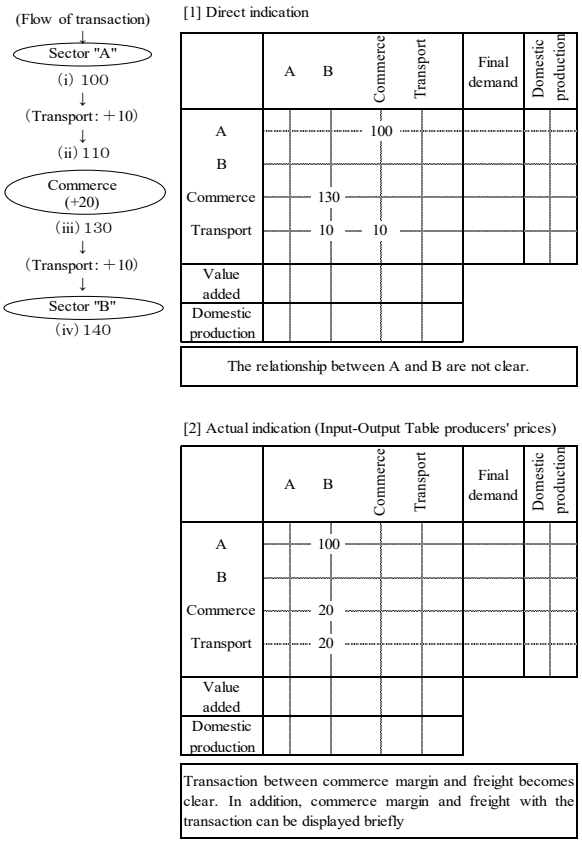
Concretely speaking, in the Input-Output Table at producers' prices, the total amount of trade margins and domestic freight added in the process of a transaction is recorded at the intersection of the sector on the purchasers' side (B), commerce, and transport (refer to [2] in Chart 3-7).

With regard to Input-Output Tables at purchasers' prices, trade margins and domestic freights are included in individual transaction amounts. Thus, in the row sectors of commerce and transport, trade margins and domestic freights are not recorded (In the case of Chart 3-7 [2], 140 is recorded at the intersection between [row] A sector and [column] B sector, and the intersection with [row] Commerce and [row] Transport becomes 0.)

(2) Cost Trade Margins and Cost Transport Margins

Special commercial and transport activities that differ from the normal distribution costs specified in (1) above are treated as direct costs. These expenses are recorded at the intersection of the "commerce" and "transport" row sectors as "cost trade margins" and "cost transport margins," that is, the cost for production activities in respective column sectors in the Input-Output Tables both at producers' prices and at purchasers' prices.

Chart 3-7 Treatment of Sectors of Commerce and Transport



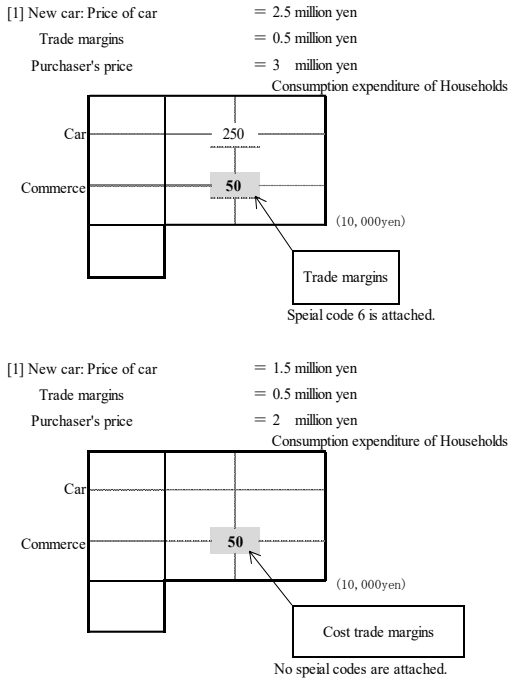
[1] Cost Trade Margins

Amounts that can be considered as being the equivalent of "cost trade margins" are, for example, transaction amounts for secondhand goods.

Secondhand goods themselves are fundamentally not products of the target year for compiling Input-Output Tables, and are not subject to being recorded in the Basic Transaction Table(Note). However, commercial activities associated with transactions of secondhand goods are activities of the applicable year, and thus only the transaction margins are recorded as "cost trade margins" (see Chart 3-8).

Specifically, transaction margins for purchases of used automobiles by households, and for used buses and trucks that correspond to fixed capital formation are equivalent to cost trade margins.

Chart 3-8 Differences in the Basic Transaction Table when a household purchases a new car and a used car



(Note) Although there are cases where an automobile is resold as a used car in the same year as being transacted as a new product in the year targeted for compilation, in such a case, the price at which the automobile was transacted as a new product (price of the good itself and the trade margins) is recorded in the Basic Transaction Table, and only the cost trade margins of the transaction as a used automobile are recorded.

[2] Cost Transport Margins

The following can be given as corresponding to "cost transport margins."

i) Costs for transportation activity that is part of the production process (that is, transportation activity that forms a part of costs for production activities)

(a) Costs for transporting such commodities as timber from the places of production to the collection points where producers' prices for such commodities are determined

(b) Costs for transporting raw materials and semi-finished products such as iron and steel, as well as ships, within a large-scale factory for their manufacture

(c) Costs for transporting such production equipment as construction machinery and scaffolding

(ii) Costs for transporting goods to be moved, trip cargo, mail, secondhand goods, coffins, waste, and construction waste soil

(a) Transporting goods to be moved and trip cargo is not regarded as a transaction between sectors that generates freight, since they are for purposes of moving from one residence to another or for moving belongings (as in the case of travelers). Such transportation costs are regarded as cost transport margins.

Note that home delivery services are treated either as distribution costs for domestic freight or as cost transport margins, depending on the type of transaction of the cargo. If home delivery is used as a means of transportation that accompanies a transaction between industry sectors, the costs are regarded as domestic freight. If travelers themselves use home delivery in order to send souvenirs bought on a journey to their home or to friends, the costs are regarded as the cost transport margins of households. In business activities, if a company uses home delivery in order to send documents and electromagnetic tapes between the headquarters and the branch offices, the costs are regarded as the cost transport margins of the company.

(b) Costs for transporting secondhand goods are treated similarly to cost trade margins.

(c) Waste and construction waste soil, which account for a large portion of the cargo transported by truck, are treated not as scrap but as goods without value, and are thus not recorded as transactions in the I-O Tables. Therefore, costs for transporting waste and construction waste soil are recorded as cost transport margins at the intersection of the waste-generating sector and the transport sector. That is, the disposal of waste and construction waste soil (payment to the carrier) in one industry is regarded as a part of the production costs of the industry.

(3) Scrap and By-Products

[1] Various methods related to handling of scraps and by-products

When certain goods are produced, in some cases the production technologies inevitably produce goods other than those intended. If such goods are produced as products in different sectors, they are referred to as "By-products"; if not, they are referred to as "Scraps." Scraps and by-products are classified as "Valuable goods," which maintain residual value, or "Non-valuable goods," which

are discarded or burned as waste. In the Basic Transaction Table for Japan, valuable goods and those identifiable by statistical materials, etc. are the subject of calculation.

In the Basic Transaction Table for Japan, the sectors in rows are formulated according to product classifications. Thus, products resulting from production activities must be assigned to a row sector. Scraps and by-products are treated by the following four methods:

i) Negative input method (Stone's method)
ii) Lump method
iii) Transfer method
iv) Separation method

Explained below are representations by these four methods with an example of the "Petrochemical sector producing 100 units of synthetic resin as its main product and 10 units of LPG as a by-product, and selling the petrochemical product to the resin sector and LPG to households, respectively." (refer to Chart 3-9)

i) Negative input method (Stone's method)

This method records negative inputs to the column sectors in which by-products were generated, and records positive inputs to the column sectors in which the said by-products were input. This is a method where the net value is made to be 0, and is referred to as "Stone's method," taking after Richard Stone (1913-1991), who contrived this method. In Japan, this method is fundamentally used to process scraps and by-products.

Concretely, in terms of production in the petrochemicals sector, only the 100 of the synthetic resin that is the main product is recorded. On the other hand, the LPG (10 units) that was generated as a by-product of the petrochemical sector is recorded as a minus input in the [column] petrochemical sector from the [row] LPG sector (in other words, sold from the petrochemical sector to the LPG sector). Furthermore, (10 units) is recorded at the intersection between [column] household consumption sector to which the LPG was actually input and [row] LPG sector. Based on this, the generation and input of by-products is cancelled out in [row] LPG sector, and ultimately, the production of LPG, which is a by-product, becomes zero.

According to this tabular format, the monetary amount of the by-product is not recorded in domestic production, but it is possible to perceive the generation source and input destination by "Scrap and by-product."

In addition, from the perspective of analysis, (1) demand pertaining to synthetic resin increases supply of LPG as it induced demand in the petrochemical sector, resulting in control of production in the LPG sector; (2) on the other hand, production of LPG as a by-product is not included in domestic production for the LPG sector, and with regard to demand in the LPG sector, only demand for LPG as a main product can be purified as being subject to spread calculation, and does not directly affect production in the petrochemical sector.

However, this method may reflect actual economic conditions if LPG as a by-product is more competitive than LPG produced by specialty enterprises. However, it may cause problems involving inadequate balance of supply and demand unless production in the LPG sector is negative if there is significant demand for resin and low demand for LPG.

After the 2000 Tables, a "Reuse and recycling" sector was established in relation to processing based on this method (see [2] hereinafter).

ii) Lump method

Under this method, the main product (synthetic resin) and by-product (LPG) are treated as a single entity, not differentiated. Domestic production in the petrochemical sector is as follows: resin (100) + LPG (10) = 110. The LPG (10) sold to the household sector is recorded as a sale for the petrochemical sector.

Since this treatment assumes that LPG production in the petrochemical sector does not affect the LPG sector, it may be acceptable if the amounts of by-products are negligible.

In the basic transaction tables for Japan, the lump method applies, for example, to "Stable manure" in the "Livestock" sector.

iii) Transfer method

With regard to LPG (10 units) that is produced as a by-product of the petrochemical sector, there is a method of outputting the LPG in the LPG sector where it is produced as a main product, and then recording it as being sold to households from the said LPG sector. The LPG that is produced as a by-product is "transferred" and output in the sector where it is treated as a main product, which is why this is referred to as the transfer method.

In this case, LPG produced by the petrochemical sector is included in domestic production, both for the petrochemical sector and for the LPG sector.

Based on this method, since the petrochemical sector that is input in the synthetic resins sector does not contain the input of LPG within its input structure, even when demand pertaining to synthetic resins raw materials arises, there is no induction pertaining to LPG. On the other hand, as there is input (10 units) from petrochemicals in the input structure of the LPG sector, when demand for LPG arises, this results in induction of production in the petrochemicals sector.

(Note) In the Basic Transaction Table for Japan, although there are no scraps and by-products in advertisement activities that are carried out within the activities of "Private broadcasting," "Newspapers," and "Publication," the same kind of representation as the transfer method is used. This is because (1) monetary amounts are considerably large, and (2) the sense of transactions is such that even for advertising that is included in media such as private broadcasting, newspapers, and publication, rather than paying fees for private broadcasting, newspapers, publication, etc. in each column sector, fees are paid to the "Advertising services" sector.

iv) Separation method

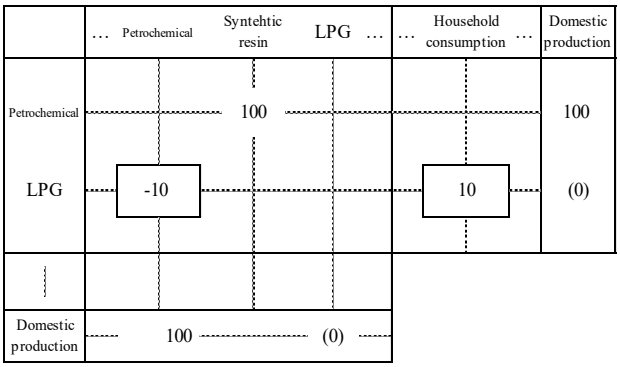
This method is one where main products and by-products are separated, and each is recorded in their respective sectors. Specifically, under this method, production activities in the petrochemical sector are divided into those for the primary product (synthetic resin) and the by-product (LPG), and the results are recorded in their respective sectors.

Production of synthetic resin and that of LPG are, essentially, inseparable. Even if provisionally separated, their production structures should maintain certain ratios; but different demand ratios for synthetic resin and LPG may suggest seemingly different production structures.

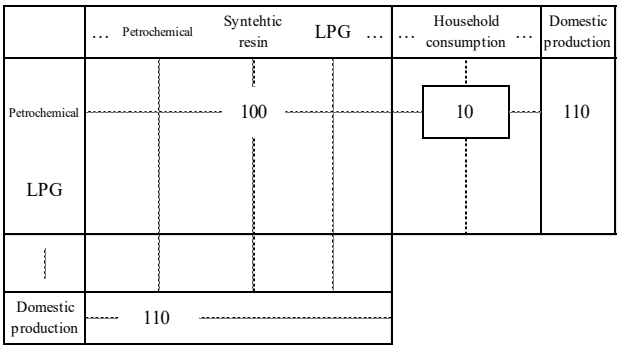
As a result, this method is not used in the Basic Transaction Table for Japan.

Chart 3-9 Representation Formats for Scrap and By-Products

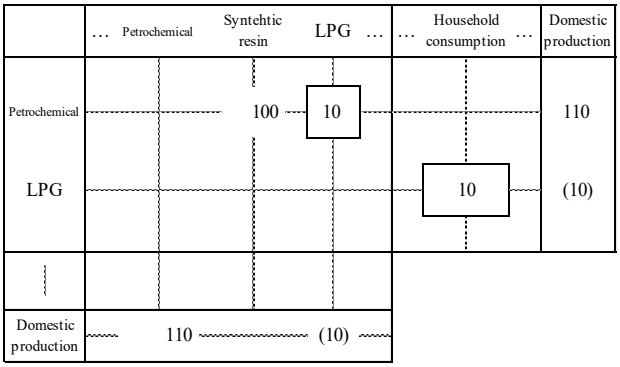
i) Negative input method (Stone's method)



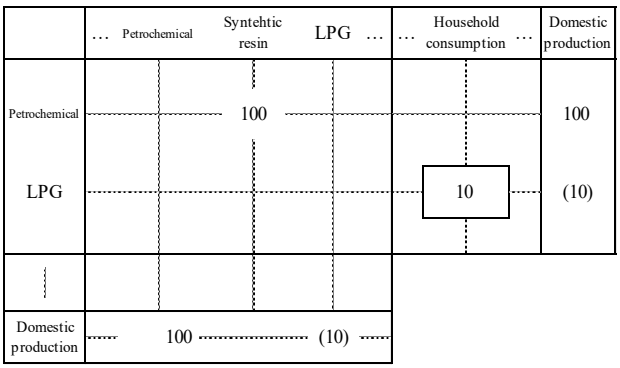
ii) Lump mthod



iii) Transfer method



iv) Separation method



[2] Handling of “Reuse and recycling”

As described in [1] above, the negative input method is fundamentally used for scraps and by-products in the Basic Transaction Table for Japan, but in anticipation of the increasing importance of recycling activities, “Reuse and recycling” is established as a sector, in relation to representing scraps and by-products that are processed using this method, starting with the 2000 Tables.

Using the following example as a model case, an explanation on the concrete representation method for this sector and its transitions is provided (refer to Chart 3-10).

[Example]

In a case where the petrochemical sector produced 100 units of synthetic resin as a main product and 10 units of LPG as a by-product, the synthetic resin was sold in the synthetic resins sector, and LPG was sold to the household consumption sector; 8 units is required as expenditures for recycling and reusing LPG

Chart 3-10 Presentation Method for the “Reuse and Recycling” Sector

i) Presentation method applied to the 2000 Input-Output Table

	… Petrochemical	Syntehtic resin	LPG	Reuse and recycling …	… Household consumption …	Domestic production
Petrochemical		100				100
LPG	-10			10		(0)
Reuse and recycling					18	(18)
Collection and processing cost				5		
Employees compensation				3		
Domestic production	100			(18)		

ii) Presentation method applied to the 2005 Input-Output Table and later

	… Petrochemical	Syntehtic resin	LPG	Reuse and recycling …	… Household consumption …	Domestic production
Petrochemical		100				100
LPG	-10				10	(0)
Reuse and recycling					8	(8)
Collection and processing cost				5		
Employees compensation				3		
Domestic production	100			(8)		

i) The 2000 Tables

In the 2000 Tables, a method was used where the LPG that was generated as a by-product from the petrochemicals sector was negatively recorded (-10 units) at the intersection with [row] LGP sector, and the amount that was generated was collectively input (10 units) into [column] “Reuse and recycling,” after which the amount to which reuse and recycling was added (18 units) was output from [row] “Reuse and recycling,” to the household consumption sector, which is a demand sector.

Based on this, the import and export of scraps and by-products, which had been recorded individually in existing row sectors to which the scraps and by-products corresponded up until the 1995 Tables, were collectively recorded in “Reuse and recycling,” with an aim to stabilize the import coefficients.

However, since all scraps and by-products are input under this method in a lump sum to the “Reuse and recycling” sector and output from there to demand sectors, it becomes impossible to maintain the basic principle of the Input-Output Tables: that “one product should be treated in one sector.”

In other words, the state became one where it was unclear what kinds of scraps and by-products were included in the individual production amounts of [row] “Reuse and recycling” (in the example of Chart 3-10, although the model is a simple one where the by-product is a type of LPG, and the output destination is only the household consumption sector, in actuality, various scraps and by-products are output to various sectors, regardless of endogenous sectors or exogenous sectors).

As a result, unless the “Table on Scraps and By-Products,” which is compiled separately as a supplementary table, is used, it is not possible to perceive inputs of each scrap and by-product. In addition, there was also the problem that reuse and recycling could not be separated due to data restrictions, even though they are intrinsically separate activities.

Even from the perspective of analysis, the following kinds of problems were evident.

(a) Since generation of by-products is displayed as a negative value, based on the perspective of analyzing multiplier effects, there are many negative numbers in inverse matrices and there is no longer significance as coefficients.

(b) Various scraps and by-products are collectively handled as “Reuse and recycling,” thus resulting in problems from the perspectives of stability of input coefficients and analysis of multiplier effects.

(c) The scraps and by-products that were generated are output via “Reuse and recycling,” and even for spill-over effects, all scraps and by-products are affected.

ii) After the 2005 Tables

Based on such problems in the 2000 Tables, only expenditures related to reuse and recycling activities came to be recorded in “Reuse and recycling” from the 2005 Tables onward. Expenditures were output in association with scraps and by-products.

Concretely, as with [1] i) above, only synthetic resin (100 units), which is a main product, is recorded as production in the petrochemical sector, while the LPG (10 units) that was generated as a by-product from the petrochemical sector is recorded as having been negatively input from [row] LPG sector to [column] petrochemical sector (in other words, sold from the petrochemical sector to the LPG sector). Furthermore, (10 units) is recorded at the intersection of [column] household consumption sector where the LPG was actually input and [row] LPG sector. Based on this, generation and input of the by-product is cancelled out within [row] LPG sector, and ultimately, the production amount of LPG, which is a by-product, becomes zero. Separately from this, expenditures for reuse, etc. of LPG are recorded in “Reuse and recycling,” and output to the household consumption sector, which is the demand destination for LPG.

In other words, this is a format based on the negative input method described in [1] iii) above, but with reuse and recycling added as a separate sector.

(4) Imputation

In cases in which transactions are not apparently conducted but utilities are actually produced and there are people who receive these utilities, “Imputation” is conducted. “Imputation” is for valuing utilities at the market price and calculating such value as domestic production for the sectors producing the utilities.

The output sectors, which receive the utilities, are listed below.

This is an effort to try to comprehend the economic activities that are hidden in the phenomena that are actually observed. Based on this, time-series comparisons and global comparisons are possible, regardless of changes and differences in social conditions and systems.

Specifically, imputation is carried out for the following:

○ Financial intermediation services

○ Insurance services including life insurance and non-life insurance

○ House rents of owner-occupied dwellings and employee housing

[1] Financial intermediation services

Activities in the financial service sector can be broadly divided into the following two categories.

i) Management, reception, and financing services for deposits and savings

ii) Remittance services and sale and purchase of securities, etc.

Among these, revenue from processing fees associated with ii) can be considered purely as compensation for provision of services; however, “profit margins” associated with i) simply arise due to transfer of ownership, when looking at it from the perspective of receiving and paying interest as property income, and cannot always be considered as formation of new added value. However, when thinking about operating activities in the financial service sector, earnings from “profit margins” is extremely important. As a result, even since before, profit margins are deemed as being compensation for services generated by the financial service sector, and were included in domestic production. In other words, the financial service sector is considered as conducting intermediary services that link transactions between borrowers and lenders of funds. As a result, such activities related to the financial service sector are referred to as “Financial intermediation services,” and associated added values are imputed.

Until the compilation of the 2005 Tables, domestic production had been recorded as shown below based on the imputed interest method:

Imputed interest = (Interest earnings from loans) - (Interest paid in relation to deposits and savings)

The output destination was limited to the intermediate demand sector (industry sector), and allocated depending on the loan balance. This is because those that receive financial intermediation services are deemed as being companies that receive loans, and because this conforms to the 68SNA that proposes for all of the monetary amount to be processed as intermediate consumption for industry. Based on this method, amounts in the exogenous sectors are not affected by financial intermediation services, and thus, it was beneficial in that the amounts in exogenous sectors do not increase or decrease depending on changes in interest.

However, with the imputed interest method, the existence of depositors are not taken into consideration, and

there were issues such that the actual state of the economy in which even households were borrowers of funds was not followed.

Beginning with the 2011 Tables, the concept that was proposed in the 93SNA "FISIM" (Financial Intermediation Services Indirectly Measured) was newly adopted. In FISIM, domestic production is calculated as follows.

[Domestic production = FISIM on borrower side + FISIM on lender side]

FISIM on borrower side = Total loan balance × (Investment interest rate - Reference interest rate)

FISIM on borrower side = Total deposits balance × (Reference interest rate - Procurement interest rate)

Investment interest rate = Total interest received from loans/Total loan balance

Procurement interest rate = Total interest paid on deposits/Total deposits balance

Reference interest rate = Total interest for calculating reference interest rate / Total balance for calculating reference interest rate

In this method, there are no limitations to the output destination as with the imputed interest method, contributing to representation of output structure that follows the actual state more closely.

[2] Life and non-life insurance

We treat the sector for life and non-life insurance as producing imputed insurance services calculated based on the following:

(Premiums received + Earnings from asset management) - (Loss paid + Increase in reserves)

All imputed services for life insurance are recorded as consumption expenditure of households, while those for non-life insurance are recorded in the endogenous sectors in addition to consumption expenditure of households.

[3] House rents of owner-occupied dwellings and employee housing

The format of owner-occupied dwellings, etc. differs in terms of economic transactions from rental housing, in that there is generally no rent payment for house ownership, while rental housing is associated with the actual payment of rent. However, even with regard to owner-occupied dwellings, etc. it is thought that the same utility as rental housing is generated with respect to the resident receiving the benefits of housing services. In the SNA, even for house ownership, etc., it is deemed that one pays rent that follows market prices for rental housing and lives in his/her house, and an amount (imputed rent) is recorded (Note1).

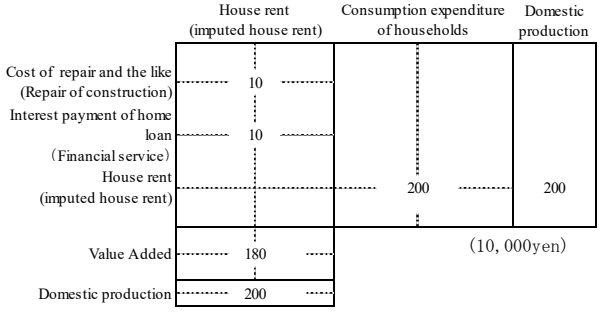
Even in the Basic Transaction Table for Japan, imputed rent has been recorded in line with this concept since the past, and a sector referred to as "House rent (imputed house rent)" has been established(Note 2). This sector is one where a person living in an owner-occupied dwelling, etc. is operating a house rental business in relation to himself/herself, and expenditures for residing in and maintaining the said owner-occupied dwelling, etc. are recorded as inputs. Specifically, most of the monetary amount is recorded in the gross value added sector, but repair of construction and financial service (interest payment related to housing loans) are recorded as intermediate input. With regard to the output, since the services are provided to the resident himself/herself, the total monetary amount is output to "Consumption expenditure of households" (see Chart 3-11).

(Notes)1 For employee housing and dormitories where there is actual payment of rent by residents, the difference between the market price of a housing facility equivalent to the said employee housing or dormitory and the amount that was actually paid as rent is recorded as imputed house rent.

2 "House rent (imputed house rent)" became independent from "House rent" starting with the 2000 Tables, but corresponding monetary amounts were recorded as "House rent" even before then.

Chart 3-11 Representation Format for Imputed Rent and House Rent

Example	Evaluate home rent equivalent by market rate ・2 million yen / year Maintenance cost of housing ・Cost of repair: 100,000 yen / year ・Interest payment of home loan: 100,000 yen / year



(5) Dummy Sectors

Among the respective sectors within the endogenous sector of the Basic Transaction Table based on production activities, some sectors are not considered independent industrial sectors. “Dummy sectors” are established to accommodate the aforementioned activities in order to facilitate compilation of the Basic Transaction Tables.

In the dummy sectors, the identification code “P” is attached at the end of the basic sector classification code.

Specifically, the following sectors are established:

- “Office supplies”
- “Self-transport (passengers)”
- “Self-transport (freight)”
- “Used paper”
- “Scrap iron”
- “Non-ferrous metal scrap”

Since the dummy sectors are not sectors that independently generate added value as they are characteristically “Dummies,” only endogenous sectors are recorded in terms of numbers, and gross value added is not recorded.

[1] Office supplies

Office supplies such as pencils, erasers, notebooks, etc. that are used commonly in each sector are often collectively processed as “Consumables” in corporate accounting. In the Basic Transaction Table, these office supplies are output from each row sector to [column] “Office supplies” that was established as a dummy sector. On top of this, the corresponding monetary amount is collectively output from [row] “Office supplies” to each column sector in which the office supplies were actually purchased. By doing so, a representation that is close to the collective processing used in corporate accounting was achieved.

The differences in the representation formats for cases where office supplies is established and where it is not established are shown in Chart 3-12. Special treatment of the office supplies sector as a dummy sector allows us to regard the sector as performing independent production activities. Note that the domestic production in the Input-Output Tables will increase by the value of office supplies, although there will be no changes to the gross value added.

[2] Self-transport (passengers, freight)

i) Definition of the self-activities sectors

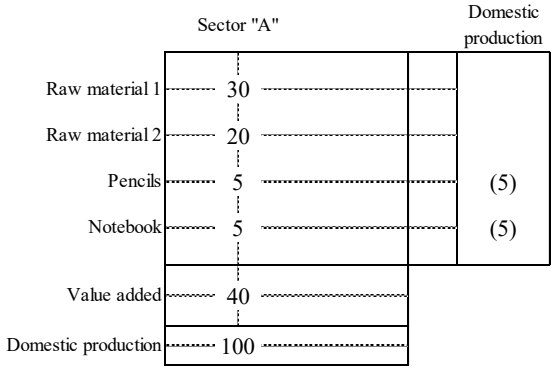
In some cases, companies cover the activities in one industrial field in-house. For example, companies cover such activities as transport, packing, in-house education, in-house research and development, advertising, and data-processing services themselves, or in-house, etc.

As the Basic Transaction Table are classified by production activities, strictly speaking, the aforementioned self-activities should be recorded in the respective sectors for transport, education, research, and data processing. However, these activities are absorbed as part of the activities of the respective sectors. Therefore, it is almost impossible for us to gain an understanding of the entire input structure by separating them. Due to such circumstances, only self-transport is established as a dummy sector at the present moment.

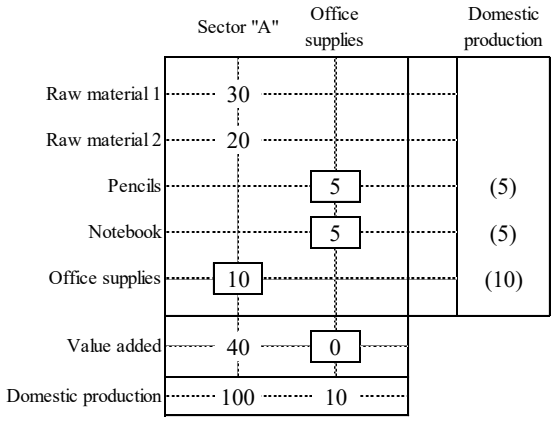
The state of establishment of the self-transport sector up to now is as indicated below.

Chart 3-12 Representation Formats for Office Supplies

[1] When the office supplies sector is not established



[2] When the office supplies sector is established



Sector	Setting year
Self-transport (passengers)	1975, '80, '85, '90, '95, 2000, '05, '11, '15
Self-transport (freight)	1975, '80, '85, '90, '95, 2000, '05, '11, '15
Self-education	1975, '80, '85
Self-research	1975, '80, '85
Self-packing	1975, '80
Self-warehouse	1975

(Note) Beginning with the 1990 Tables onward, gross value added amount has been calculated and included in "Research and development" in the industry sector.

ii) Representation format

The products that are necessary for carrying out self-activities are represented in a format where they are output to [column] self-activities sector, after which they are purchased collectively by each demand sector (column sectors that are carrying out self-activities in the process of production activities) from [row] self-activities sector.

The differences in representation formats for when the self-activities sectors are established and when they are not established are as shown in Chart 3-13. Specially targeting these self-activities sectors as dummy sectors means that their status as independent production activities is recognized within this extent. Accordingly, domestic production for the table as a whole becomes large only for the self-activities sectors, but as the gross value added amount is not recorded in dummy sectors, there are no changes to the gross value added amount.

[3] Scrap iron, non-ferrous metal scrap, and used paper

In principle, scrap and by-products are treated as minus input, and are input the same amount to the "Reuse and recycling" sector. The amount to which the cost of collection and treatment is add is output from that sector to each input sector. In this case, by-products can be recorded in the sectors (row) in which the products are primarily produced. In the case of scrap iron, non-ferrous metal scrap, and used paper, however, there is no sector in which these are the main products. Therefore, their output and input cannot be recorded. We will establish the row sectors for scrap iron, non-ferrous metal scrap, and used paper as dummy sectors.

Other scrap should be recorded in the sectors for similar raw materials. For example, the scrap of glass bottles should be recorded in the sector for other glass products.

(6) Usership and Ownership

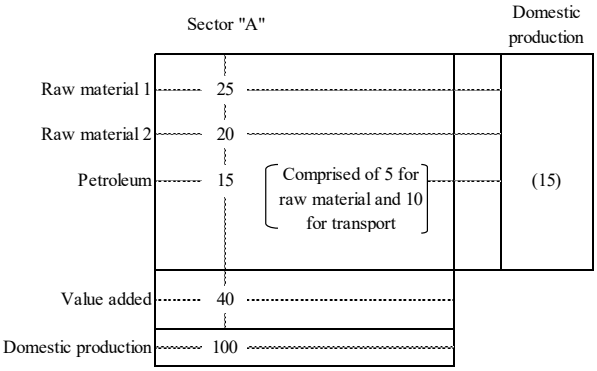
[1] Concepts of usership and ownership

There are two methods for treating the current expenses of production facilities in the goods rental and leasing sectors: "Usership" and "Ownership."

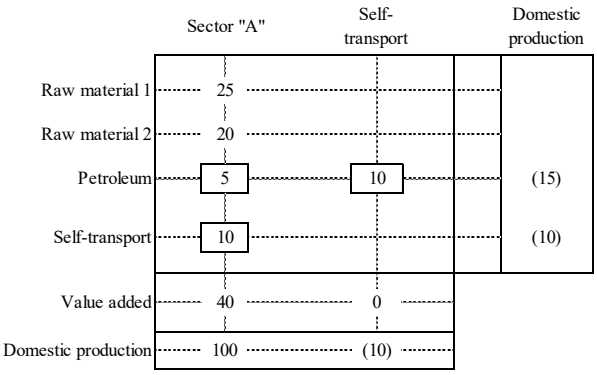
With "Usership," the cost of using production facilities is recorded in the sector that uses them, regardless of who owns them and who directly pays the cost. As for rented production facilities, we record the rental expense composed of the cost of maintenance and consumption, as well as the net rental (the amount after deduction of the cost of maintenance and consumption from the gross rental), in the sector that uses the production facilities as the cost or the operating surplus (the portion of the net rental) . As a result, the rental sector does not work out to be a sector,

Chart 3-13 Representation Formats of Self-Transport Sector

i) When the self-transport sector is not established



ii) When the self-transport sector is established as a dummy sector



Note: If sector "A" spends 10units of petroleum for self-transport, another 10 units of the self-transport sector will be recorded in the total domestic products in addition to the 10 units of petroleum invested

but it is advantageous in that production and capital that is used for production can be processed together, and there is increased stability of input coefficients.

"Ownership," on the other hand, is a concept where expenditures, etc. are recorded in the sector that owns the production facility, and it is necessary to establish a sector that carries out rental and leasing of goods. In this case, the total of revenues from goods rental and leasing becomes the domestic production for the sector carrying out the goods rental and leasing, and on the other hand, the amount equivalent to goods rental and leasing (payment) is recorded in the column sectors corresponding to the users (borrowers) as intermediate input from the row sectors carrying out goods rental and leasing. In terms of the actual economic state, as there is considerable weight of the goods rental and leasing business making up the industry as a whole, in cases where it is necessary to record domestic production and gross value added from sectors carrying out goods rental and leasing separately, the concept of ownership is used.

[2] Treatment in the Basic Transaction Table for Japan

In the Basic Transaction Table for Japan, both concepts were used together(Note1) up until the 1985 Tables, but starting with the 1990 Tables, estimations are made based on "ownership" as a whole (Note 2).

This is because, as described above, there was a necessity to perceive goods rental and leasing as an independent sector, due to a rise in the weight of the goods rental and leasing business. At the same time, estimations based on "usership" were judged as being extremely difficult when looking at the current state of basic statistics.

Differences in representation formats based on usership and ownership are indicated in Chart 3-14.

Note:1 Until compilation of the 1985 tables, the following goods rental and leasing sectors had been estimated based on "ownership": "Electronic computing equipment rental and leasing," "Office machines rental and leasing (except electronic computing equipment)", and "Car rental and leasing," as well as "Real estate rental service." On the other hand, the industries included in "General goods rental and leasing" and "Industrial equipment and machinery rental and leasing" in the Japan Standard Industrial Classification had been estimated based on "usership."

2 There are two formats for goods rental and leasing—"operating lease" and "finance lease."

Operating lease is a type of rental and lease that is generally imagined, where machinery and facilities are leased for a period of time that is shorter than their useful life. This is a format of production activity where the owner (lender) provides services of goods rental and leasing to a user (borrower) (as part such services, there are often cases where the user is responsible for maintenance and repair of machinery or facilities), and domestic production is valuated based on the rent that is paid by the user to the owner.

In relation to this, finance lease is a "lease transaction where the corresponding contract cannot be dissolved during the lease period based on the least contract, or a lease transaction conforming to such a lease, where the lender can substantially receive the economic benefits that are yielded from the property that is used based on the said contract, and is substantially responsible for the costs that are incurred in accordance with use of the said property" (Accounting Standards for Lease Transactions (Corporate Accounting Standard No. 13) Paragraph 5).

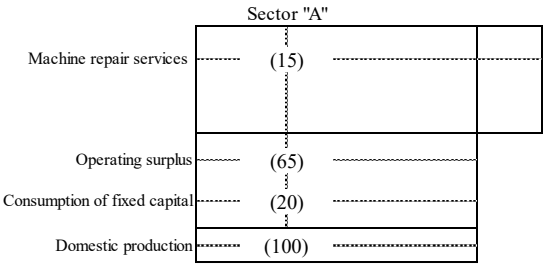
In Japan, accounting processing related to finance leases was, in principle, changed from leasing to sale and purchase, in accordance with changes in accounting standards related to lease transactions in 2008. Even within the same goods rental and leasing business, handling in terms of accounting has come to be divided. However, due to restrictions in basic statistics, finance leases continue to be handled as the goods rental and leasing business in the Basic Transaction Table, and are recorded as "ownership" for the goods rental and leasing business as a whole.

Chart 3-14 Representation Formats of Usership and Ownership

Example: When sector "A" rents industrial machinery at the rental expense of 100 from the company of goods rental and leasing

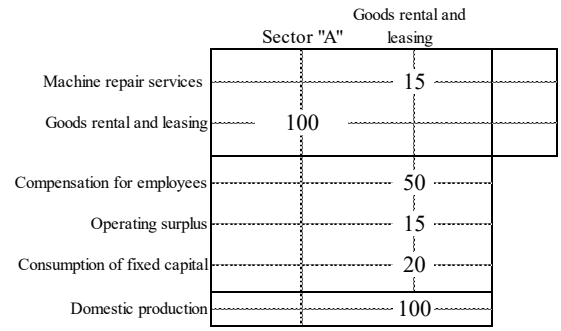
[1] Usership(recorded as if sector "A" owns the machinery.)

Note: The cost of the rental services is added to the cost for the original activities of sector "A".



[2] Ownership (The company of goods rental and leasing is recorded as the owner of the machines.)

Note: Represented in the same way as in normal purchase of services



(7) Activities of Non-market Producers

[1] Activities that are carried out by the government and independent administrative agencies, etc. are broadly categorized into (1) non-market producers (general government), (2) non-market producers (private non-profit institutions serving households), and (3) market producers. (1) and (2) differ from general industry in terms of the cost structure and source of funds for activities. As a result, special handling is implemented.

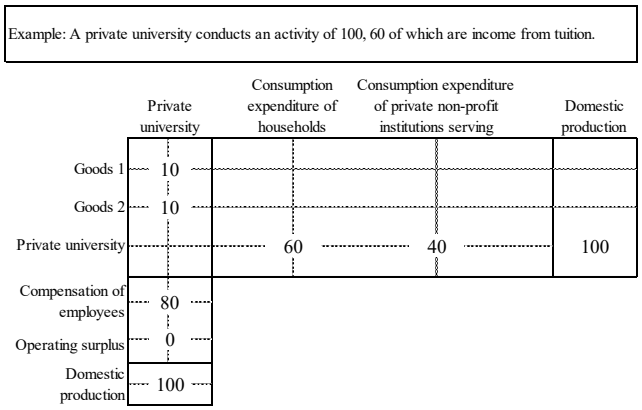
[2] The sectors that are associated with the * symbol, such as “School education (private),” to which private schools correspond, and “Private non-profit institutions serving households,” to which academic organizations correspond, are handled as non-market producers (private non-profit institutions serving households) in terms of transactor-based production activity classification. These kinds of sectors are handled in a special manner as follows (see Chart 3-15).

i) Domestic production is measured using gross production expenditures, and operating surplus is not recorded.

ii) For output destinations, the amount paid for service activities of the corresponding sector is recorded in its burden sector (or in other words, the column sector for the industry or household that paid the fee,) and the remaining amount is recorded at the intersection of the row sector and “Consumption expenditure of private non-profit institutions serving households.”

iii) For output destinations of “Research institutes for natural sciences (NPI)*” and “Research institutes for cultural and social sciences (NPI),*” the amount paid for service activities of the corresponding sector is recorded in its burden sector, the amount paid for research and development is recorded in “Gross domestic fixed capital formation (private sector),” and remaining amount is recorded at the intersection of the row sector and “Consumption expenditure of private non-profit institutions serving households.”

Chart 3-15 Representation Format of the Activity of Non-market Producers (Private Non-Profit Institutions Serving Households)



CHAPTER Ⅳ
COEFFICIENTS FOR INPUT-OUTPUT ANALYSIS AND COMPUTATION METHODS

§ 1 Input Coefficients

1 Calculating Input Coefficients

"Input coefficients" represent the scale of raw materials and fuels used can be obtained by dividing the input of raw materials and fuels utilized to generate one unit of production in each sector. They correspond to basic unit prices, and are obtained by dividing the amount of raw materials, fuel, etc. input into each sector by the domestic production value of that sector. A list of input coefficients indicated for each sector is referred to as an "input coefficient table."

To simplify, if the domestic economy is deemed to be comprised only of Sector 1 and Sector 2, the Basic Transaction Table may be as indicated in Chart 4-1.

Chart 4-1 Basic Transaction Table (conceptual chart)

	[Column] Sector 1	[Column] Sector 2	Final demand	Total Domestic products
[Row] Sector 1	x_{11}	x_{12}	F_1	X_1
[Row] Sector 2	x_{21}	x_{22}	F_2	X_2
Gross Value added	V_1	V_2		
Total Domestic products	X_1	X_2		

However, it is assumed that next balance equations are satisfied.

Supply-demand balance equation (balancing of total supply and total demand)

$$\begin{cases} x_{11} + x_{12} + F_1 = X_1 \\ x_{21} + x_{22} + F_2 = X_2 \end{cases}$$

Income-expense balance equation

$$\begin{cases} x_{11} + x_{21} + V_1 = X_1 \\ x_{12} + x_{22} + V_2 = X_2 \end{cases}$$

When "a_{11}" is defined as the figure produced by dividing "X_{11}," representing the input of [Column] Sector 1 from [Row] Sector 1 by "X_1," representing the domestic production, "a_{11}" represents the input required to produce one unit of production of [Column] Sector 1 from [Row] Sector 1.

$$a_{11} = \frac{x_{11}}{X_1} \quad \cdots\cdots [1]$$

Similarly, the expression $a_{21} = x_{21}/X_1$ represents the amount of raw materials, etc. that the [column] sector 1 input from [row] sector 2 to produce one unit of the product.

Similar to intermediate inputs, $v_1 = V_1/X_1$ can be defined by dividing the value added produced in [Column] Sector 1 by domestic production.

In this case, "V_1," the gross value added, signifies inputs of the primary factors of [Column] Sector 1, such as labor and capital, and "v_1" can be regarded as an input unit of such production factors.

Applying the above procedure to [Column] Sector 2 (the second column for Chart 4-1) produces the following input coefficient table (Chart 4-2)

Chart 4-2 Input Coefficient Table (conceptual chart)

	[Column] Sector 1	[Column] Sector 2
[Row] Sector 1	a_{11}	a_{12}
[Row] Sector 2	a_{21}	a_{22}
Gross Value added	v_1	v_2
Total Domestic products	1.0	1.0

Note

$$a_{ij} = \frac{x_{ij}}{X_j}$$

$$v_j = \frac{V_j}{X_j}$$

The input coefficient table indicates the scale of raw materials, etc. required to generate one unit(note) of production in each sector, and the sum of input coefficients including the gross value added portion in each sector is defined as 1.0.

For instance, looking at the top of the table along agriculture, forestry, and fishery, when that industry generated one unit of production, intermediate inputs of 0.121569 units were produced by the agricultural, forestry, and fishery sector, and, 0.230494 units of intermediate inputs were similarly produced by the manufacturing sector. Thus, a total of 0.523411units of intermediate inputs were required. The table also indicates that 0.476589 units of gross value added were produced as the result of the production.

(Note) Ideally, "Unit" here should be a physical unit, such as a weight or number of items, etc. In the Input-Output Tables, figures are represented in monetary amount to maintain consistency for various products. The input coefficients calculated from these figures are the input coefficients based on monetary values at the prices of the relevant year.

Suppose production of 100-yen of Product A requires 50

yen of Product B. If the prices of all products can be expressed through "amount-by-unit price," this situation may be equivalent to a hypothetical situation in which 50 of "Product B that can be purchased at one yen" was input to produce 100 of "Product A that can be purchased at one yen." Production volumes of all industries are valued at the unit of quantity equivalent to one yen (or one dollar or one million yen or other consistent monetary units), to allow comparison of industry production units. This system is called Input-Output Tables at the "yen value unit." Valuation by the "yen value unit" for the base year represents the nominal value itself. If the "yen value unit" in the base year is applied to the year to be compared, "real evaluation" based on the valuation at yen value in the table for the base timetable can be obtained.

2 Definition of Input Coefficients

(1) Measurement of Effects of Input Coefficients on Production

Next, the meanings of input coefficients are considered with Chart 4-1 and Chart 4-2 mentioned above.

Suppose demand for Sector 1 has increased by one unit. Sector 1 require raw materials, etc. to generate one unit of production. Sector 1 thus generate intermediate demands of "a11" and "a21" units of raw materials to Sector 1 and Sector 2, respectively, in accordance with the input coefficients, which is the primary production repercussion. Receiving the demands, Sector 1 and Sector 2 will further generate the secondary production repercussions, in accordance with the respective input coefficients to produce "a11" and "a21" units. This series of production repercussions continues infinitely, until domestic production levels for the respective sectors can ultimately be calculated as the summation of all production repercussions.

In this manner, input coefficients are crucial to measuring how much production can be ultimately induced at each sector when certain levels of final demand are generated in an industrial sector.

However, it is all but impossible and unfeasible to trace and calculate each process of production repercussion occurrences. The following inverse matrix coefficients are prepared to simplify such production repercussion calculations. As a preparatory step, it is necessary to explain the process of production repercussions.

(2) Mathematical Computation of Effects on Production

In Chart 4-1 above, the mathematical formula of the balance for every row is described by the following equations:

$$\left.\begin{aligned} x_{11} + x_{12} + F_1 &= X_1 \\ x_{21} + x_{22} + F_2 &= X_2 \end{aligned}\right\} \cdots\cdots\cdots [2]$$

As in the case of equation [1], "a21," "a12," and "a22" are calculated and substituted into equation [2], resulting in the following modifications:

$$\left.\begin{aligned} a_{11}X_1 + a_{12}X_2 + F_1 &= X_1 \\ a_{21}X_1 + a_{22}X_2 + F_2 &= X_2 \end{aligned}\right\} \cdots\cdots\cdots [3]$$

As indicated in equation [3], certain relationship exists between final demand and domestic production. The relationship is defined by "input coefficients."

Equation [3] can be expressed in a matrix, as follows:

$$\begin{bmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{bmatrix} \begin{bmatrix} X_1 \\ X_2 \end{bmatrix} + \begin{bmatrix} F_1 \\ F_2 \end{bmatrix} = \begin{bmatrix} X_1 \\ X_2 \end{bmatrix}$$

$$A = \begin{bmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{bmatrix}$$

This is referred to as the input coefficient matrix.

Assigning specific figures to the final demands represented by "F1" and "F2" in the simultaneous equations of [3] and solving them makes it possible to obtain domestic production that meets final demand. This calculation produces the domestic production levels in Sector 1 and Sector 2 resulting from production repercussion effects.

Demand increases in a certain industrial sector will require inputs of raw materials and fuels, etc. from other industries for production activities, and thereby affecting not just sector production but those of the other industries, which will further generate additional demands in the original sector as repercussion effects. Equation [3] indicates a mechanism for calculating the cumulative effects of these repercussions. This is the fundamental approach and constitutes the basis of input-output analyses based on input coefficients.

However, it is important that this approach is based on the premise of stable input coefficients, as indicated below. If there are constant fluctuations in the input coefficients, itis impossible to determine the above-mentioned relationships between final demand and domestic production.

3 Stability of Input Coefficients

(1) Consistency of Production Technology Levels

In the Input-Output Tables, input ratios of raw materials and fuels, etc. required to produce goods and services represented by the input coefficients are assumed not to fluctuate significantly between the year to be analyzed and the year referred to when the table was compiled.

Input coefficients, in short, reflect production technologies adopted in a certain year. Changes in production technologies may naturally change the input coefficients.

Although drastic changes are generally not supposed to occur in production technologies in short timeframes, in industries and regions that undergo rapid technological advancements, it becomes necessary, as the year subjected to analyses falls behind the year to be referred to for compiling tables, to acquire information on changes in input coefficients somehow and make proper adjustments.

(2) Consistency of Production Scale

Each industrial sector is comprised of various enterprises and establishments with different production scales. Even if the same products are produced, different production scales will inevitably lead to different input structures among enterprises and establishments due to the different technological structures for production and economy-of-scale levels.

However, the Input-Output Tables are compiled while reflecting the average production structures in the production scale in the years referred to for compiling tables. In input-output analyses, therefore, the production scales of enterprises and establishments allocated to their respective industrial sectors are assumed not to have undergone significant changes between the years to be analyzed and those referred to when tables were compiled.

(3) Change Factors of Input Coefficients

It is assumed that there are few changes in input coefficients between the year to be analyzed and the year referred to for compilating tables. In reality, however, in addition to the (1) and (2) above, input coefficients may change over time due to the following factors:

[1] Changing Relative Prices

Since individual transactions in the Basic Transaction Tables are valued at prices in the year referred to when the tables were compiled, changing the relative prices of goods and services will change the input coefficients, even if the technological structures for production remain constant.

Historical comparisons would require Linked Input-Output Tables based on fixed price valuations, in which effects of fluctuating relative prices are eliminated.

[2] Changing Product Mixes

If multiple products with different input structures and unit prices are placed in the same sector (which is referred to as a “product mix”), changes in product structures within the sector will change the input coefficients of the entire sector, even if there is no change in input structure or unit price of each product.

§2 Inverse Matrix Coefficients

1 Definition and Computation of Inverse Matrix Coefficients

One of the important analyses in input-output analyses is to analyze the direct and indirect effects of certain final demands that occurred in an industrial sector on other industrial sectors. As stated before, input coefficients in the respective industrial sector may play crucial roles.

Suppose the domestic economy is comprised only of Sector 1 and Sector 2. As stated in section 1, when the final demand is given, solving the following simultaneous equations will give the domestic production levels of Sector 1 and Sector 2.

$$\left.\begin{aligned} a_{11}X_1 + a_{12}X_2 + F_1 = X_1 \\ a_{21}X_1 + a_{22}X_2 + F_2 = X_2 \end{aligned}\right\} \cdots\cdots\cdots\cdots\cdots\cdots [3]$$

Indeed, if the entire structure were composed only of these two sectors, calculations would be quite simple. In reality, even the medium aggregated Sector Classification has as many as 107 sectors, which makes solving simultaneous equations for all of them impractical and makes it almost impossible to conduct proper analyses.

If calculations can be made in advance, as to what kind of production repercussions on various sectors may be expected if one unit of final demand is produced for a certain sector, and how much domestic production will be finally expected in each sector, analyses could be significantly expedited. “Inverse matrix coefficient tables” are compiled in response to this need.

In the matrix indication for equation [3] above,

$$\begin{bmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{bmatrix}\begin{bmatrix} X_1 \\ X_2 \end{bmatrix} + \begin{bmatrix} F_1 \\ F_2 \end{bmatrix} = \begin{bmatrix} X_1 \\ X_2 \end{bmatrix} \cdots\cdots\cdots\cdots\cdots [3]'$$

when the input coefficient matrix is defined as

$$\begin{bmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{bmatrix} = A$$

the final demand column vector is defined as

$$\begin{bmatrix} F_1 \\ F_2 \end{bmatrix} = F$$

and the domestic production column vector is defined as

$$\begin{bmatrix} X_1 \\ X_2 \end{bmatrix} = X$$

$$AX + F = X \cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots [3]''$$

can be obtained. The solution for X is

$$X - AX = F$$
$$(I - A)X = F$$
$$\therefore \quad X = (I - A)^{-1}F$$

where “I” is an Identity matrix, $(I-A)^{-1}$ is the inverse matrix of $(I-A)$, as follows:

$$(I - A)^{-1} = \begin{bmatrix} 1-a_{11} & -a_{12} \\ -a_{21} & 1-a_{22} \end{bmatrix}^{-1}$$

The factors of this matrix are referred to as “inverse matrix coefficients,” a listing of which is the “Inverse Matrix Coefficient Table.” This table indicates how much production will be ultimately induced in what sector by a demand increase of one unit in a certain sector. Once the inverse matrix coefficients are calculated, the simultaneous equations in [3] do not need to be solved independently. When the final demand in a sector is given, the domestic production at each sector, corresponding to the final demand, can be immediately calculated.

(Note) For the equation of [3], to be able to give a non-negative solution for a certain F (non-negative), the necessary and sufficient condition will be that all principal minors in the matrix $(I-A)$ in the matrices need to be positive (Hawkins-Simon’s condition). For all the principal minors in matrix $(I-A)$ to be positive, the sufficient condition will be

$$\sum_{i=1}^{n} a_{ij} < 1 \qquad (j = 1,2,\cdots,n)$$

Here the sum of input coefficients should always be less than 1 (Solow’s condition).That is necessary condition.

Sectors at the top of the inverse matrix coefficient table are those in which one unit of the final demand has been generated; sectors at the side indicate those in which production can somehow be induced by generation. For instance, in examining the agriculture, forestry, and fishery from the top of the table down, one unit of final demand in the agriculture, forestry, and fishery sector can ultimately generate 1.119526 units of production inducement in the agriculture, forestry, and fishery sector itself; and production inducements in the mining, manufacturing, and construction industries will be 0. 000838 units, 0.344368 units, and 0. 004946 units, respectively, resulting in a total of 1.797141 units of production inducements, which can be interpreted as corresponding to the vertical sum.

Input coefficients introduced in §1 indicate the amount of raw materials and other factors directly required to produce one unit of certain goods or services. The inverse matrix coefficients indicate the magnitude of the ultimate direct and

indirect production repercussions on various industrial sectors when there is one unit of final demand for a certain sector.

(Note) In this way, when inverse matrix coefficients are observed in relation to production repercussions, for instance, when one unit of final demand is generated in agriculture, forestry, and fishery, production in the sector must increase (direct effect) to satisfy demand.

Due to agriculture, forestry, and fishery to increase production, other sectors must increase production, the effects of which further increase production in agriculture, forestry, and fishery (indirect effects). As a result, the production increase in the agriculture, forestry, and fishery sector usually exceeds one unit. Thus, the diagonal elements in the inverse matrix coefficients indicating the production increase in the self-activity sector commonly exceed 1.

A column vector with the inverse matrix defined as B, the diagonal element as b_{ii}, and the column vector as (u_i), in which the i-th element is 1 and the other elements are 0, can be describe as follows:

$$Bu_i = \begin{bmatrix} b_{11} & \cdots & b_{1i} & \cdots & b_{1n} \\ \vdots & \ddots & \vdots & \iddots & \vdots \\ b_{i1} & & b_{ii} & & b_{in} \\ \vdots & \iddots & \vdots & \ddots & \vdots \\ b_{n1} & \cdots & b_{ni} & \cdots & b_{nn} \end{bmatrix} \begin{bmatrix} 0 \\ \vdots \\ 1 \\ \vdots \\ 0 \end{bmatrix} = \begin{bmatrix} b_{1i} \\ \vdots \\ b_{ii} \\ \vdots \\ b_{ni} \end{bmatrix}$$

It can be concluded from the above that the i-th column vector of the inverse matrix B indicates the production increase units at each sector when one unit of final demand is generated in the sectors. (For the reasons mentioned above, $b_{ii} \geqq 1$)

The vertical sum of aggregated i-th column in the inverse matrix B corresponds to the production inducement coefficient of the i-th sector (please refer to §3).

2 Types of Inverse Matrix Coefficients (Handling of Imports)

In analyses of production repercussions with Input-Output Tables, a major issue is import handling. §2 above the mentioned the so-called Type $(I-A)^{-1}$ model, which is a simplified model excluding imports. Basically various goods are imported and consumed in parallel with domestic products in industries and households.

Chart 4-3 shows the model for Basic Transaction Tables, clearly indicating imports. For row items, both intermediate demand (x_{ij}) and final demand (F_i) are supplies including imports, and columns and rows (production) offset each other because imports are indicated negative values.

Chart 4-3 Basic Transaction Table (conceptual chart that import is demonstrated)

	Sector 1	Sector 2	Final demand	Import	Domestic production
Sector 1	x_{11}	x_{12}	F_1	$-M_1$	X_1
Sector 2	x_{21}	x_{22}	F_2	$-M_2$	X_2
Gross value added	V_1	V_2			
Domestic production	X_1	X_2			

Input coefficients include imports. This implies that all repercussions derived from final demand do not necessarily induce domestic production; some effects may induce imports.

In other words, for accurate determination of domestic production inducements, import inducements must be deducted.

It is thus necessary to provide a calculation method for inverse matrix coefficients that accounts for import inputs.

The inverse matrix coefficients in the $[I-(I-\hat{M})A]^{-1}$ Type are commonly utilized in Japan. Several inverse matrix coefficient calculation methods are also used, as follows:

(1) $(I-A)^{-1}$ Type

This model suggests that imports are handled exogenously (meaning that changes are irrespective of domestic production activities).

The supply-demand balance equation can be presented as follows:

$$\left.\begin{aligned} a_{11}X_1 + a_{12}X_2 + F_1 - M_1 = X_1 \\ a_{21}X_1 + a_{22}X_2 + F_2 - M_2 = X_2 \end{aligned}\right\} \cdots\cdots\cdots\cdots\cdots [4]$$

The matrix denotation is as indicated below.

$$AX + F - M = X \cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots [4]'$$

This is a “Competitive import type” model in which intermediate demand (AX) and final demand (F) include a certain volume of imports.

The solution for X is:

$$\begin{aligned} &X - AX = F - M \\ &(I-A)X = F - M \\ &\therefore \quad X = (I-A)^{-1}(F-M) \end{aligned}$$

In this model, both final demand and imports can be determined exogenously. Imports, however, can generally be induced by domestic production. In other words, it is to regard them as endogenously determined (meaning that changes are respective of domestic production activities). Thus, this model is used infrequently in general multiplier effect analyses.

(2) $[I-(I-\hat{M})A]^{-1}$ Type

This model divides final demand (F) into domestic final demand (Y) and export (E), giving the following equation:

$$F = Y + E$$

This is substituted into [4]' above. The supply-demand balance equation can be expressed as follows:

$$AX + Y + E = X \quad \text{.....[5]}$$

In the tables, mere transit transactions are not supposed to be incorporated into exports. Thus, it can be assumed that exports do not include imports. Import coefficients by row can be defined as follows:

$$m_i = \frac{M_i}{\sum_j a_{ij}X_j + Y_i}$$

That is, "m_i" represents the ratio of imports in product "i" within total domestic demands, or ratios of dependence on imports; while (1-m_i) represents self-sufficiency ratios.

When [5] is represented for "i" row,

$$\sum_j a_{ij}X_j + Y_i + E_i - M_i = X_i \quad \text{.....[6]}$$

From the definition of import coefficients,

$$M_i = m_i\left(\sum_j a_{ij}X_j + Y_i\right) \quad \text{.....[7]}$$

[7] is substituted into [6], and the equation is as follows:

$$X_i - (1-m_i)\sum_j a_{ij}X_j = (1-m_i)Y_i + E_i \quad \text{.....[8]}$$

The diagonal matrix ($\hat{M}$) can be assumed to have an import coefficient (m_i) as the diagonal element and zero as the non-diagonal element.

$$\hat{M} = \begin{bmatrix} m_1 & & 0 \\ & \ddots & \\ 0 & & m_n \end{bmatrix}$$

From [8] above, the following equation can be obtained:

$$[I-(I-\hat{M})A]\ X = (I-\hat{M})Y + E \quad \text{.....[9]}$$

From [9], the following equation can be obtained:

$$X = [I-(I-\hat{M})A]^{-1}[(I-\hat{M})Y + E] \quad \text{.....[10]}$$

Giving domestic final demand (Y) and export (E) produces domestic production (X).

Here, $(I-\hat{M})A$ indicates the input ratio of domestic products when the import input ratio is assumed to be constant in all sectors, whether they are for intermediate demand or final demand. $(I-\hat{M})Y$ indicates domestic final demand for domestic products under the same assumption. In other words, this is the "competitive import type" model when import ratios for individual items (for rows) (or import coefficients) are assumed to be identical in all output sectors.

Inverse matrix coefficient tables based on this model are commonly used in Japan.

(Note) "Transit transactions" means that imported products are exported as they are, without being processed domestically, implying that the products merely pass through the country.

(3) $(I-A^d)^{-1}$ Type

This inverse matrix coefficients is the "non-competitive import type," which can be used for analysis when the input ratios of imports differ from sector to sector.

Chart 4-4 shows simplified non-competitive Import Basic Transaction Table.

Chart 4-4 Basic Transaction Table (conceptual chart of Non-Competitive Import Type)

		Industry 1	Industry 2	Final demand	Import	Domestic production
Domestic	Industry 1	x_{11}^d	x_{12}^d	F_1^d	—	X_1
	Industry 2	x_{21}^d	x_{22}^d	F_2^d	—	X_2
Import	Industry 1	x_{11}^m	x_{12}^m	F_1^m	-M_1	—
	Industry 2	x_{21}^m	x_{22}^m	F_2^m	-M_2	—
Gross value added		V_1	V_2			
Domestic production		X_1	X_2			

Naturally, the following equations can be defined:

$$x_{ij} = x_{ij}^d + x_{ij}^m$$
$$F_i = F_i^d + F_i^m$$

The supply-demand balance for domestic products can be presented as follows:

$$\left.\begin{aligned} x_{11}^d + x_{12}^d + F_1^d &= X_1 \\ x_{21}^d + x_{22}^d + F_2^d &= X_2 \end{aligned}\right\} \quad \text{..... [11]}$$

Where input coefficient for domestic intermediate goods is defined as follows:

$$a_{ij}^d = \frac{x_{ij}^d}{X_j}$$

Then, the equations [11] can be as follows:

$$\left.\begin{aligned} a_{11}^d X_1 + a_{12}^d X_2 + F_1^d &= X_1 \\ a_{21}^d X_1 + a_{22}^d X_2 + F_2^d &= X_2 \end{aligned}\right\} \quad \text{.....[11]'}$$

This can be represented by the following matrix:

$A^dX + F^d = X$.....[11]"

This is the "non-competitive import type" model. Both intermediate demand (A^dX) and final demand (F^d) cover domestic products and exclude imports.

The solution of [11]" for X is as follows:

$X - A^dX = F^d$

$(I - A^d)X = \mathrm{F}$

$\therefore\ \mathrm{X} = (\mathrm{I} - A^d)^{-1} F^d$

When the final demand for domestic products (F^d) is given, the domestic production level (X) can be obtained:

The relationship with the competitive import type model may be presented as follows: When the input coefficient matrix for import is defined as (A^m) and the final demand colum vector for imports is defined as (F^m), the following equations can be derived:

$A = A^d + A^m$

$F = F^d + F^m$

Based on the above equations, the following supply-demand balance can be obtained:

$(A^d + A^m)X + (F^d + F^m) = \mathrm{X} + \mathrm{M}$

This is the basic equation of the competitive import type of model.

Input ratios of domestic and imported products in the actual economy may generally differ from sector to sector. Inverse matrix coefficients based on this model represent this situation as is. When this type of inverse matrix coefficients are compared with (2) $[I - (I - \hat{M})A]^{-1}$, significant differences may be observed at times in certain sectors.

In the Input-Output Tables compiled as a joint project by related authorities, inputs and outputs are divided into domestic and imported products, making it possible to use two different types of inverse matrix tables, namely, "competitive import type" and "non-competitive import type." Which is appropriate will depend on the purpose of the analysis and considerations regarding consistency with the assumptions.

3 Index of the Power of Dispersion and Index of the Sensitivity of Dispersion

(1) Index of the Power of Dispersion

The figure in each column in the inverse matrix coefficient table indicates the production required directly and indirectly at each row sector when the final demand for the column sector (that is, demand for domestic production) increases by one unit. The total (sum of column) indicates the scale of production repercussions on entire industries, caused by one unit of final demand for the column sector.

The vertical sum of every column sector of the inverse matrix coefficients is divided by the mean value of the entire sum of column to produce a ratio. This ratio indicates the relative magnitudes of production repercussions; that is, which sector's final demand can exert the greatest production repercussions on entire industries. This is called the "Index of the Power of Dispersion" and can be calculated as follows: (Please refer to Chart 4-5)

$$\text{Index of the power of dispersion by sector} = \frac{\text{Each sum of cloumn in inverse matrix coefficient table}}{\text{Mean value of entire vertical sum in the inverse matrix coefficient table}} = \frac{b_{*j}}{\overline{B}}$$

Here,

$$b_{*j} = \sum_i b_{ij}$$

$$\overline{B} = \frac{1}{n}\sum_j b_{*j} = \frac{1}{n}\sum_i \sum_j b_{ij}$$

The index of the power of dispersion indicated above is referred to as the "first category index of the power of dispersion." Table 4-1 indicates the calculation of the index of the power of dispersion by utilizing as the inverse matrix in the 37 sector table of the 2015 Input-Output Tables. This indicates that the indices for iron and steel and transportation machinery, etc. have relatively high indices of the power of dispersion, indicating that both sectors exert great production repercussions on entire industries.

Conversely, sectors indicating small indices of the power of dispersion are petroleum and coal products, real estate, education and research, etc. Service-related sectors generally have slight production repercussions on entire industries.

However, the sum of column of inverse matrix coefficients tends to increase as the intermediate input ratios increase. In addition, since intermediate input includes the "Self-sector input," representing inter-industrial transactions, which may significantly affect intermediate input ratios, the "Self-sector input" may sometimes be ex-

cluded from calculations of "indices of the power of dispersion."

In this case, when only indirect effects excluding the direct effect of 1.0 to the self-sector are considered, they are referred to as the "second category index of the power of dispersion." When effects on the self-sector are completely eliminated and only the effects on the other sectors are considered, they are referred to as the "third category index of the power of dispersion."

(2) Index of the Sensitivity of Dispersion

The figure for each row in the inverse matrix coefficient table indicates the supplies required directly and indirectly at each row sector when one unit of the final demand for the column sector at the top of the table occurs. The ratio produced by dividing the sum of row of each sector by the mean value of the entire sum of row will indicate the relative influences of one unit of final demand for a row sector, which can exert the greatest production repercussions on entire industries. This is called the "Index of the Sensitivity of Dispersion," which can be calculated as follows: (Please refer to Chart 4-5)

$$\text{Index of the sensitivity of dispersion by sector} = \frac{\text{Each sum of row in inverse matrix coefficient table}}{\text{Mean value of the entire horizontal sum in inverse matrix coefficient table}} = \frac{b_{i*}}{\overline{B}}$$

Here

$$b_{i*} = \sum_j b_{ij}$$

$$\overline{B} = \frac{1}{n}\sum_i b_{i*} = \frac{1}{n}\sum_i \sum_j b_{ij}$$

The index of the sensitivity of dispersion indicated above is referred to as the "primary index of the sensitivity of dispersion." As with the case of the "index of the power of dispersion," the "self-sector input" may be excluded for the "index of the sensitivity of dispersion." In this case, the "secondary index of the sensitivity of dispersion" and the "tertiary index of the sensitivity of dispersion" are defined, as with the index of the power of dispersion.

Chart 4-5 Inverse Matrix Coefficient Table (conceptual chart)

	1	2	3	⋯	n	Sum of column	Index of the Sensitivity of dispersion
1	b_{11}	b_{12}	b_{13}	⋮	b_{1n}	b_{1*}	$b_{1*}/\overline{B}$
2	b_{21}	b_{22}	b_{23}	⋮	b_{2n}	b_{2*}	$b_{2*}/\overline{B}$
3	b_{31}	b_{32}	b_{33}	⋮	b_{3n}	b_{3*}	$b_{3*}/\overline{B}$
				⋮			
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
				⋮			
n	b_{n1}	b_{n2}	b_{n3}	⋮	b_{nn}	b_{n*}	$b_{n*}/\overline{B}$
Sum of row	b_{*1}	b_{*2}	b_{*3}	⋯	b_{*n}	$\sum b_{i*} = \sum b_{*j}$	
Index of the Power of dispersion	$\frac{b_{*1}}{\overline{B}}$	$\frac{b_{*2}}{\overline{B}}$	$\frac{b_{*3}}{\overline{B}}$	⋯	$\frac{b_{*n}}{\overline{B}}$		

Table 4-1 indicates the calculation of index of the sensitivity of dispersion utilizing $[I-(I-\hat{M})A]^{-1}$ as the inverse matrix in the 37 sector table of the 2015 Input-Output Tables. Here, since the sensitivity indices of business services, iron and steel, transport and postal services, etc. are high, these sectors provide raw materials and services to a wide range of fields. They are thus deemed sensitive to fluctuations in business cycles in entire industries.

Since both indices of the power and sensitivity of dispersion are based on inverse matrix coefficients, different results may be obtained depending on how sectors are aggregated and on the types of inverse matrices.

(3) Functional Analysis based on Indices of the Power and Sensitivity of Dispersion

By combining the indices of the power of dispersion and those of the sensitivity of dispersion, we can create a typological presentation of the characteristics of each industrial sector.

As indicated in Chart 4-6, the figures of the sectors are plotted on a chart, with the indices of the power of dispersion on the horizontal axis, and those of the sensitivity of dispersion on the vertical axis. Each position on the chart

can reveal characteristics of the industrial sector.

Sectors plotted in Quadrant "I" can both exert strong influence on entire industries and are most affected to external influences. Typically, these are the raw materials manufacturing sectors, including basic materials such as iron and steel, chemical products, pulp, paper and wooden products, etc.

Quadrant "II" includes sectors whose influence on entire industries is weak, but whose sensitivity is high. Typically, these sectors provide services to other sectors, such as business services, transport and postal services and commerce.

Quadrant "III" includes sectors whose influence on entire industries is weak and whose sensitivity is low; typically, these are primary industrial sectors such as mining, ceramic, stone and clay products, as well as independent-type industrial sectors such as real estate and education and research.

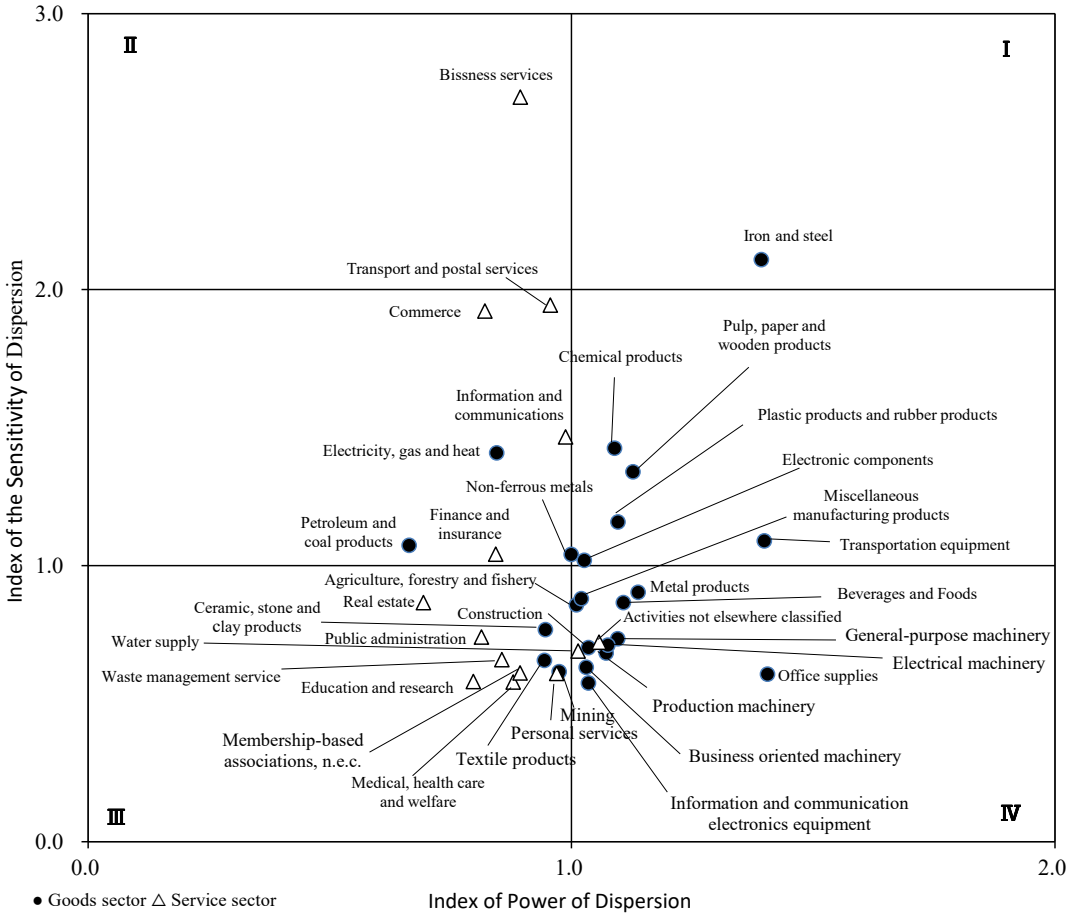
Quadrant "IV" includes sectors with strong influence on entire industries but with relatively low sensitivity. Typically, these sectors involve the manufacture of final goods, including metal products, general-purpose machinery, electrical machinery, production machinery, and electronics equipment for information and communications.

Table 4-1 Tables of Indices of Power of Dispersion and of the Sensitivity of Dispersion for 2015

Sector	Index of Power of Dispersion	Index of the Sensitivity of Dispersion
01 Agriculture, forestry and fishery	1.010260	0.858539
06 Mining	0.974293	0.616348
11 Beverages and Foods	1.107423	0.866508
15 Textile products	0.943860	0.657103
16 Pulp, paper and wooden products	1.127075	1.340074
20 Chemical products	1.089006	1.425355
21 Petroleum and coal products	0.664006	1.073498
22 Plastic products and rubber products	1.095830	1.158925
25 Ceramic, stone and clay products	0.945928	0.768289
26 Iron and steel	1.392897	2.109189
27 Non-ferrous metals	0.999369	1.040784
28 Metal products	1.137873	0.903461
29 General-purpose machinery	1.095575	0.735453
30 Production machinery	1.071537	0.683843
31 Business oriented machinery	1.030321	0.631975
32 Electronic components	1.026357	1.019865
33 Electrical machinery	1.074946	0.712558
34 Information and communication electronics equipment	1.035224	0.574928
35 Transportation equipment	1.398763	1.089517
39 Miscellaneous manufacturing products	1.020225	0.880569
41 Construction	1.034871	0.703655
46 Electricity, gas and heat supply	0.845210	1.408634
47 Water supply	1.013427	0.690441
48 Waste management service	0.855902	0.659584
51 Commerce	0.820816	1.922362
53 Finance and insurance	0.843133	1.041588
55 Real estate	0.693512	0.866016
57 Transport and postal services	0.956132	1.943733
59 Information and communications	0.987709	1.467155
61 Public administration	0.813507	0.741778
63 Education and research	0.796899	0.580674
64 Medical, health care and welfare	0.879110	0.578521
65 Membership-based associations, n.e.c.	0.893744	0.611857
66 Business services	0.893801	2.697929
67 Personal services	0.969546	0.609651
68 Office supplies	1.405265	0.606738
69 Activities not elsewhere classified	1.056648	0.722902

(Note) Derived from the 37-Sector Table

Chart 4-6 Indices of the Power of Dispersion and the Sensitivity of Dispersion



§3 Relationship Between Final Demand and Domestic Production

1 Domestic Production Induced by Individual Final Demand Items

Every sector in the endogenous sector supplies goods and services to each industrial sector as well as final demand sectors. On the whole, however, the industrial activities of the endogenous sectors produce to just satisfy the final demand, and their production levels depend on the size of the respective final demands. Based on the competitive import model and when imports fluctuate in proportion to domestic demand, the following relationship holds in the Input-Output Tables, as indicated by equation [10] of §2, through the inverse matrix coefficients:

$$X = [I-(I-\hat{M})A]^{-1}[(I-\hat{M})Y+E]^{-1}$$

X: Total domestic products; $[I-(I-\hat{M})A]^{-1}$: Inverse matrix; $[(I-\hat{M})Y+E]^{-1}$: Value of final demand

Here, final demand (F) can be classified into six categories: [1] consumption expenditure outside households; [2] private consumption expenditures; [3] consumption expenditure of general government; [4] gross domestic fixed capital formation; [5] increase in stock; and [6] exports (E). Domestic products induced by individual final demand items refer to the production of every sector induced by individual final demand items.

Domestic products induced by individual final demand items can be an indication for analyzing and analyzing the items in the final demand that influence value fluctuations in domestic production, and can be calculated as follows:

As mentioned above, the final demand vector F may be divided into domestic final demand vector Y and export vector E. Domestic final demand vector Y can be dissolved into various vectors of domestic final demand items (e.g., private consumption expenditure and gross domestic fixed capital formation, etc.), which may be represented as follows:

$$Y = Y_1 + Y_2 + Y_3 + \cdots + Y_N$$

Given that X_K represents the induced production value derived from the respective domestic final demands, domestic final demand may be expressed as follows:

$$X_k = [I - (I - \hat{M})A]^{-1}(I - \hat{M})Y_k \qquad k = 1,2,\cdots,N$$

Production value induced by exports E can be expressed as follows:

$$X_E = [I - (I - \hat{M})A]^{-1} E$$

Since the aggregate of induced production values by the respective final demand items is equivalent to the value of domestic production, we derive the following equation:

$$X = \sum_{k=1}^{N} X_k + X_E$$

It is also possible to use $(I - A^d)^{-1}$ as the inverse matrix. In that case, the final demand vector multiplying on the right side represents the final demand for domestic items (F^d).

2 Domestic Production Inducement Coefficients by Individual Final Demand Items

"Production inducement coefficient by final demand item" is defined as the domestic products induced by individual final demand items divided by the total for corresponding final demand.

Given that:

$$Y_k = \begin{bmatrix} Y_{1k} \\ \vdots \\ Y_{nk} \end{bmatrix}, \quad X_k = \begin{bmatrix} X_{1k} \\ \vdots \\ X_{nk} \end{bmatrix} \qquad k = 1,2,\cdots,N \quad \text{(Domestic final demand items)}$$

And

$$E = \begin{bmatrix} E_1 \\ \vdots \\ E_n \end{bmatrix}, \quad X_E = \begin{bmatrix} X_{1,N+1} \\ \vdots \\ X_{n,N+1} \end{bmatrix}$$

Then, the domestic production of sector "i" induced by domestic final demand item "K" and exports will be X_{ik} and $X_{i,N+1}$, respectively, and the production inducement coefficients can be expressed as follows:

Production inducement coefficients by final demand items $= \begin{cases} \dfrac{X_{ik}}{\sum_{j=1}^{n} Y_{jk}} & \text{(Domestic final demand)} \\ \dfrac{X_{i,N+1}}{\sum_{j=1}^{n} E_j} & \text{(Exports)} \end{cases}$

This indicates the rate of increase of domestic production in an sector, derived from the total increase of one unit of a certain final demand item (within the same item).

The aggregated production inducement coefficients by final demand items for the respective sectors—that is,

$$\frac{\sum_{i=1}^{n} X_{ik}}{\sum_{j=1}^{n} Y_{jk}} \; and \; \frac{\sum_{i=1}^{n} X_{i,N+1}}{\sum_{j=1}^{n} E_j}$$

may sometimes be called "Production inducement coefficients."

Chart 4-7 Domestic Production Inducement Coefficients by Individual Final Demand Items (conceptual chart)

		Final demand item							
		1	2	3	…	…	…	N	$N+1$
Industrial sector	1 2 3 ⋮ ⋮ n	Production inducement coefficient by final demand item $\left[\frac{X_{ik}}{\sum_{j=1}^{n} Y_{jk}}\right]$ $\left[\frac{X_{i,N+1}}{\sum_{j=1}^{n} E_j}\right]$							
Total									

(Note) X_{ik}, $X_{i,N+1}$: Production inducements by final demand item

$\sum_{j=1}^{n} Y_{jk}$, $\sum_{j=1}^{n} E_j$: Total of Final demands

3 Domestic Production Inducement Distribution Ratios by Individual Final Demand Items

"Production inducement distribution ratios by final demand items" are defined as the proportion ratios of induced production value derived from the respective industrial sectors. They indicate the degree of influence or weighting of the respective final demand items on the domestic productions in industrial sectors.

Chart 4-8 Domestic production Inducement Distribution Ratios by Individual Final Demand Items (conceptual chart)

		Final demand item							Total
		1	2	3	… … …	N	$N+1$		
Industrial sector	1 2 3 ⋮ ⋮ n	Production inducement distribution ratio by final demand item $\left[\frac{X_{ik}}{X_i}\right]\left[\frac{X_{i,N+1}}{X_i}\right]$							1.0

(Note) X_{ik}, $X_{i,N+1}$: Production inducement by final demand item

X_i : Total of production inducement (total domestic products)

§4 Relationship Between Final Demand and Gross Value Added

The domestic production of each sector is comprised of intermediate input and gross value added. Since domestic production can be induced by final demand, we can assume that gross value added, which is part of domestic production, can be similarly induced by final demand.

It is thus possible to apply the relational expression between domestic production and final demand, introduced in §3, to gross value added and final demand in exactly the same manner.

The ratio of gross value added is defined as the gross value added of each sector divided by the domestic production of the sector. This is the gross value added per unit of production, the elements of which can be represented in a diagonal matrix " ."

$$\hat{v}=\begin{bmatrix} v_1 & & & & 0 \\ & v_2 & & & \\ & & v_3 & & \\ & & & \ddots & \\ 0 & & & & v_n \end{bmatrix} \qquad v_j=\frac{V_j}{X_j}(j=1,2,\cdots,n)$$

Therefore, when V is defined as a vector of gross value added,

$V=\hat{v}\cdot X$

Thus, the supply-demand balance equation mentioned in §3 can be indicated for the gross value added, as follows:

$$V=\hat{v}\cdot\ [I-(I-\hat{M})A]^{-1}[(I-\hat{M})Y+E]$$

This equation can be used to define the following, as in the case of production inducement:

[1] Gross value added inducement

[2] Gross value added inducement coefficient

[3] Gross value added inducement distribution ratio

When comparing the production inducement coefficient with the gross value added inducement coefficient, it is obvious that "Exports" and "Gross domestic fixed capital formation," which indicate larger figures among the final demand items for production inducement coefficients, give smaller figures than "Consumption" for gross value added inducement coefficient. This implies that policies such as increasing public sector investment and promoting exports would stimulate the economy, but that stimulating consumption is more effective for added value levels (GDP levels).

§5 Relationship Between Final Demand and Imports

1 Imports Induced, Imports Inducement Coefficients and Imports Inducement Distribution Ratios by Individual Final Demand Items

When certain final demands are generated, not all are usually satisfied by domestic production. Some are met by imports.

A fundamental field within input-output analyses is a measurement of the scale of production induced at each sector by generation of a certain final demand. It is also possible to determine the scale of imports induced by the same cause. This requires the import coefficient of each sector. The scale of imports induced by one unit of final demand can be calculated with the import coefficients.

In the inverse matrix coefficients based on the $[I-(I-\hat{M})A]^{-1}$ type, commonly utilized in Japan, as explained in §2, the Input-Output Tables do not cover re-exports of imported goods (that is, exports exclude all imports). Thus, import coefficients are defined as ratios to domestic demand, as follows:

$$m_i=\frac{M_i}{\sum_{j=1}^{n}a_{ij}X_j+Y_i} \qquad \hat{M}=\begin{bmatrix} m_1 & & 0 \\ & \ddots & \\ 0 & & m_n \end{bmatrix}$$

$$\therefore M=\hat{M}(AX+Y) \qquad \cdots\cdots\cdots\cdots\cdots\cdots [12]$$

Total domestic products X can be expressed as follows:

$$X=[I-(I-\hat{M})A]^{-1}[(I-\hat{M})Y+E] \cdots\cdots\cdots [13]$$

The inverse matrix coefficient $[I-(I-\hat{M})A]^{-1}$ is expressed as B and replaces [12] above and expanded as follows:

$$M = \hat{M}AB(I-\hat{M})Y + \hat{M}ABE + \hat{M}Y$$

$$M = [\hat{M}AB(I-\hat{M}) + \hat{M}]\ Y + \hat{M}ABE \quad \cdots\cdots\cdots \quad [14]$$

In other words, imports can be divided into those induced by domestic final demand, excluding exports (the first term of the right side of M in the equation [14]), and those induced by exports E (the second term on the right side of [14]).

$\hat{M}AB$ can be regarded as the inverse matrix coefficient B multiplied by the input coefficient $\hat{M}A$.

The breakdown of the import inducement by each of the final demand items is presented as the "import inducement coefficient by final demand item." As indicated in equation [14], imports *M* can be resolved as follows:

$$M = [\hat{M}AB(I-\hat{M}) + \hat{M}]\ Y + \hat{M}ABE$$

As is apparent from this equation, these factors are given by multiplying the final demands of the relevant items, respectively. Namely, they are given by multiplying the respective final demand item vectors from the "Consumption expenditure outside households" to "Increase in stocks," which are domestic final demands by the matrix $[\hat{M}AB(I-\hat{M}) + \hat{M}]$, and for "Exports" by multiplying the export vector by the matrix $\hat{M}AB$.

Import inducement coefficients by final demand items and import inducement distribution ratios by final demand items are not explained here, as they can be calculated in the same as in the case of production inducement coefficients and production inducement distribution ratios in §3.

2 Comprehensive Imports Coefficients

The sum of column of the matrix $[\hat{M}AB(I-\hat{M}) + \hat{M}]$, $\hat{M}AB$ are coefficients that indicate the size of import inducements due to generation of one unit of "final demand excluding exports" and "Exports" (the same itemized structure), and are referred to as "comprehensive import coefficients.".

§ 6 Labor Input-Output Analysis Coefficients

1 Labor Inducement Coefficients

In the Input-Output Tables, as mentioned, the following relationship holds between domestic production and final demand through the inverse matrix coefficients, and production inducement coefficients on final demand can be calculated as:

$$X = [I-(I-\hat{M})A]^{-1}[(I-\hat{M})Y + E] \cdots\cdots\cdots [15]$$

X	: Total domestic products
$[I-(I-\hat{M})A]^{-1}$	: Inverse matrix
$[(I-\hat{M})Y+E]$	: Final demand

Labor input coefficients and labor inducement coefficients are obtained by applying labor input, which is one of the supplementary tables for the Input-Output Tables, or the labor matrix.

Here, each row of matrix L of the labor input (man-year) for each sector is divided by domestic production to give the labor input coefficient matrix L'.

The labor input coefficient represents the amount of labor directly necessary for each unit of production and generally corresponds to the inverse of labor productivity.

(Labor input *L*)

	Sector 1	Sector 2	Sector 3	.....	Sector *n*
Total employees	l_{11}	l_{12}	l_{13}	·····	l_{1n}
Self-employed	l_{21}	l_{22}	l_{23}	·····	l_{2n}
Family worker	l_{31}	l_{32}	l_{33}	·····	l_{3n}
⋮	⋮	⋮	⋮		⋮
⋮	⋮	⋮	⋮		⋮
⋮	⋮	⋮	⋮		⋮
Total domestic products	X_1	X_2	X_3	·····	X_n

(Labor input coefficient, *L'*)

	Sector 1	Sector 2	Sector 3	.....	Sector *n*
Total employees	l'_{11}	l'_{12}	l'_{13}	·····	l'_{1n}
Self-employed	l'_{21}	l'_{22}	l'_{23}	·····	l'_{2n}
Family worker	l'_{31}	l'_{32}	l'_{33}	·····	l'_{3n}
⋮	⋮	⋮	⋮		⋮
⋮	⋮	⋮	⋮		⋮
⋮	⋮	⋮	⋮		⋮

(Note) $l'_{ij} = \dfrac{l_{ij}}{X_j}$

Here, the total number of employees and the *i*-th employee position are analyzed. The *i*-th row of L is placed vertically to produce vector L_i, and the *i*-th element of L' is placed diagonally to produce matrix $\hat{L}'_i$, as follows:

$$L_i = \begin{bmatrix} l_{i1} \\ l_{i2} \\ \vdots \\ l_{in} \end{bmatrix}, \quad \hat{L}'_i = \begin{bmatrix} l'_{i1} & & & 0 \\ & l'_{i2} & & \\ & & \ddots & \\ 0 & & & l'_{in} \end{bmatrix}$$

$$\begin{aligned} L_i &= \hat{L}'_i X \\ &= \hat{L}'_i [I - (I - \hat{M})A]^{-1} [(I - \hat{M})Y + E] \\ &= \hat{L}'_i B [(I - \hat{M})Y + E] \cdots\cdots\cdots\cdots\cdots\cdots [16] \end{aligned}$$

Here, the following equation is defined.

$$B = [I - (I - \hat{M})A]^{-1}$$

Each column of the matrix $\hat{L}'_i B$ indicates the size of labor demand required directly and indirectly at each sector when one unit of final demand is generated for each sector. The elements of this matrix $\hat{L}'_i B$ are commonly referred to as "labor inducement coefficients."

At the same time, each column of matrix $L'B$ indicates the scale of labor demand by occupational positions required directly and indirectly when one unit of final demand is generated for each sector. This may also be referred to as "labor inducement coefficients." "Occupation inducement coefficients" to be explained later are based on the latter concept.

Domestic final demand Y is comprised of consumption expenditure of households, consumption expenditure of general government, gross domestic fixed capital formation and exports, etc., and can be expressed as follows:

$$Y = Y_1 + Y_2 + \cdots + Y_N \cdots\cdots\cdots\cdots\cdots\cdots [17]$$

From [16] and [17], the following equation can be obtained:

$$\begin{aligned} L_i &= \hat{L}'_i B \ [(I - \hat{M})(Y_1 + Y_2 + \cdots + Y_N) + E] \\ &= \hat{L}'_i B(I - \hat{M})Y_1 + \cdots + \hat{L}'_i B(I - \hat{M})Y_N + \hat{L}'_i BE \cdots [18] \end{aligned}$$

Each term on the right-hand side indicates the comprising item of the final demand of labor induced.

In input-output analyses, it is assumed that input coefficients are stable and that no significant differences exist among them between the time at which the tables are compiled and the time at which analyses are made. A similar assumption is applied to labor-related input-output analyses; labor input coefficients are assumed to be stable.

However, unlike input coefficients, labor input coefficients cannot always be stable. For instance, even if production in a certain sector has doubled, the labor input may not necessarily double when measures such as installing industrial robots and improving the operating ratios are instituted. In conducting labor-related input-output analyses, therefore, it is necessary to fully consider factors such as changes in operating ratios and labor productivity.

2 Labor-Related Indices of Power and Sensitivity of Dispersion

As the indices of the power of dispersion and those of the sensitivity of dispersion can be obtained from the inverse matrix coefficients, the indices of the power of dispersion and those of the sensitivity of dispersion concerning labor inducements can also be obtained from the labor inducement coefficient matrix $\hat{L}'_i B$.

(1) Index of the Power of Dispersion for Labor Inducement

This index is used to compare the sizes of effects at different sectors of an increase of one unit of final demand at a certain sector on labor demand at the respective row sectors.

The "primary index of the power of dispersion for labor inducement" can be calculated as follows:

$$\begin{aligned} &\text{Primary index of the power of dispersion for labor inducement by sector} \\ &= \frac{\text{Each vertical sum of labor inducement coefficient matrix}}{\text{Mean of the entire vertical sum of labor inducement coefficient matrix}} \\ &= \frac{C_j}{\overline{C}} \end{aligned}$$

Here,

$$C = \hat{L}'_i B = [C_{ij}]$$

$$C_j = \sum_i C_{ij}, \quad \overline{C} = \frac{1}{n}\sum_j C_j$$

The bigger the index of the power of dispersion, the greater the labor demand at each sector, induced by one

unit of final demand at the sector.

While the "primary index of the power of dispersion for labor inducement" indicates the direct and indirect effects of labor inducement, including the self-sector, the "tertiary index of the power of dispersion for labor inducement" completely eliminates the effects on the self-sector and concentrates on labor inducement effects on the other sectors. It is calculated by replacing the diagonal element on the labor inducement coefficient matrix with zero, and using a similar method to that applied for the primary index of the power of dispersion. The bigger the index of the tertiary index of the power of dispersion, the greater the labor inducement effects on the other sectors.

(2) Index of the Sensitivity of Dispersion for Labor Inducement

The index of the power of dispersion is calculated from each vertical sum (column) of the labor inducement coefficients. Also from each horizontal sum (row) of the labor inducement coefficients, the "index of the sensitivity of dispersion" can be calculated. Used to compare labor inducement effects received at different sectors from one unit of final demand generated at each sector, the "primary index of the sensitivity of dispersion for labor inducement" is calculated as follows:

$$\text{Primary index of the sensitivity of dispersion for labor inducement by sector} = \frac{\text{Each horizontal sum of labor inducement coefficient matrix}}{\text{Mean of the entire horizontal sums of labor inducement coefficient matrix}} = \frac{C_i}{\overline{C}}$$

Here,

$$C_i = \sum_j C_{ij}, \quad \overline{C} = \frac{1}{n}\sum_i C_i$$

Sectors indicating higher "primary indices of the sensitivity of dispersion for labor inducement" are more susceptible to labor inducement effects.

As with the case of the "index of the power of dispersion for labor inducement," the "secondary index of the sensitivity of dispersion of labor inducement" and the "tertiary index of the sensitivity of dispersion for labor inducement" are also calculated for the index of sensitivity of dispersion for labor inducement.

3 Occupation Inducement Coefficients

The Employment matrix (table on employees engaged in production activities [by occupation]) makes it possible to calculate the employment inducement coefficient by occupation.

The occupational input coefficient matrix can be derived by dividing each element of the employment matrix S by domestic production at each sector.

(Employment Matrix S)

	Sector 1	Sector 2	Sector 3	.....	Sector n
Occupation 1	S_{11}	S_{12}	S_{13}	·····	S_{1n}
Occupation 2	S_{21}	S_{22}	S_{23}	·····	S_{2n}
Occupation 3	S_{31}	S_{32}	S_{33}	·····	S_{3n}
⋮	⋮	⋮	⋮		⋮
⋮	⋮	⋮	⋮		⋮
⋮	⋮	⋮	⋮		⋮
Domestic production	X_1	X_2	X_3	·····	X_n

(Note) Employees include paid officers.

(Occupation Input Coefficient S')

	Sector 1	Sector 2	Sector 3	.....	Sector n
Occupation 1	S'_{11}	S'_{12}	S'_{13}	·····	S'_{1n}
Occupation 2	S'_{21}	S'_{22}	S'_{23}	·····	S'_{2n}
Occupation 3	S'_{31}	S'_{32}	S'_{33}	·····	S'_{3n}
⋮	⋮	⋮	⋮		⋮
⋮	⋮	⋮	⋮		⋮
⋮	⋮	⋮	⋮		⋮

(Note) $S'_{ij} = \dfrac{S_{ij}}{X_j}$

The vector S^* comprised of the sum of row of S may be expressed as follows:

$$S^* = S'B\,[(I-\hat{M})Y + E] \cdots\cdots\cdots\cdots\cdots\cdots [19]$$

Here, $B = [I-(I-\hat{M})A]^{-1}$

The matrix $S'B$ is the "occupation inducement coefficients" matrix, representing the number of employees by occupation, to be required directly and indirectly by one unit of final demand at each sector.

4 Labor and Occupation Inducement Coefficients by Individual Final Demand Items

As stated earlier, domestic final demand Y can be resolved for each item and represented as follows:

$$Y = Y_1 + Y_2 + \cdots + Y_N \quad \cdots\cdots\cdots\cdots\cdots\cdots [17]$$

$$L_i = \hat{L}_i' B(I - \hat{M})Y_1 + \cdots + \hat{L}_i' B(I - \hat{M})Y_N + \hat{L}_i' BE \quad [18]$$

The above equations can be used to obtain the labor inducement coefficient by final demand items. They can also indicate which final demand items and how many employees or workers in the respective sectors will be required, as well as their respective occupational positions.

In the equation [19], final demands can be resolved for the respective items, as follows:

$$S^* = S'B(I - \hat{M})Y_1 + \cdots + S'B(I - \hat{M})Y_N + S'BE$$

This obtains the number of employees by occupations required for specific final demand items (occupation inducement coefficients by final demand items).

§7 Problem of Sector Integration

1 Introduction

In the 2015 Input-Output Tables, the 187 sector tables, the 107 sector tables, 37 sector tables and 13 sector classification tables were compiled based on a basic sector classification comprised of 509 rows and 391 columns. In addition, users can easily compile aggregated sector classification tables for their own purposes just by adding up the figures of relevant sectors:

If the objective is to read the Input-Output Tables as they are, sector integration is simply how accuracy the tabulations should be. However, the most important things in using Input-Output Tables is conducting economic forecasts, measuring the mode of specific economic policies, or analyzing prices using input coefficients, inverse matrix coefficients, production inducement coefficients by final demand item, etc. If Input-Output Tables are to be useful for these purposes, the manner in which the sectors for Input-Output Tables are defined will be crucial.

Therefore, for compiling aggregated sector classification tables on their own, it is important that the sectors subjected to analysis be set as independent sectors while the other sectors are integrated properly for ease of handling, etc. It must be noted that, for calculations of production inducement and other effects with Input-Output Tables (to calculate inverse matrix coefficients), different results are generally obtained from different sector establishments.

This was once pointed out by W. Leontief, founder of Input-Output Tables, as follows:

Industrial classifications for input-output analyses are led by considerations of technical homogeneity. Integration problems may arise from scaling down the matrix by integrating the columns in input-output matrix and the related several rows. The relationship between the nature of the integrated matrix and that of the non-integrated ones depends on the positions at which the input columns of the integrated sectors are placed within the non-integrated matrix. Under certain ideal conditions, the integrated inverse matrix of the original matrix corresponds to the inverse matrix of the integrated matrix. If these conditions are met not completely but approximately, that correspondence has been realized only approximately.

Which sector should be established to eliminate production repercussions? What needs to be kept in mind when integrating sectors? These points will be addressed in the following sections.

2 Theoretical Aspects of Sector Integration

(1) Integration of Two Sectors

We will discuss a case of integrating Sector 1 and Sector 2 by defining an input coefficient matrix A as follows

$$A = \begin{array}{c} \begin{matrix} \text{Sector } l & \text{Sector } 1 & \text{Sector } 2 & \text{Sector } r \end{matrix} \\ \begin{bmatrix} P & u_1 & u_2 & R \\ l_1' & a_{11} & a_{12} & r_1' \\ l_2' & a_{21} & a_{22} & r_2' \\ Q & d_1 & d_2 & S \end{bmatrix} \end{array} \begin{matrix} \text{Sector } l \\ \text{Sector } 1 \\ \text{Sector } 2 \\ \text{Sector } r \end{matrix}$$

Here, X_1 and X_2 are defined as domestic productions of Sector 1 and Sector 2, respectively, and the following relationships are established.

$$\alpha = \frac{X_1}{X_1 + X_2} \qquad \beta = \frac{X_2}{X_1 + X_2}$$

In this case, the input coefficient matrix when Sector 1 and Sector 2 are integrated can be represented in the following matrix:

$$\overset{+}{A}=\left[\begin{array}{c|c|c} P & \alpha u_1+\beta u_2 & R \\ \hline l_1'+l_2' & \begin{array}{c}\alpha(a_{11}+a_{21}) \\ +\beta(a_{12}+a_{22})\end{array} & r_1'+r_2' \\ \hline Q & \alpha d_1+\beta d_2 & S \end{array}\right]$$

Here, final demand can be expressed as follows:

$$F=\begin{bmatrix} F_l \\ F_1 \\ F_2 \\ F_r \end{bmatrix} \quad \begin{array}{ll} F_l & \text{Final demand for Sector l} \\ F_1 & \text{Final demand for Sector 1} \\ F_2 & \text{Final demand for Sector 2} \\ F_r & \text{Final demand for Sector r} \end{array}$$

In the above inverse matrix model considering, the conditions required to make production inducements in A and $\overset{+}{A}$ identical for a certain final demand F

First, the input coefficient matrix A prior to the sector integration is used to calculate the primary repercussion on final demand F. When X_I is defined as the vector of domestic production induced by the primary repercussion on the relevant sectors, the following can be defined:

$$X^1=\begin{bmatrix} X_l^1 \\ X_1^1 \\ X_2^1 \\ X_r^1 \end{bmatrix}=AF=\begin{bmatrix} PF_l+u_1F_1+u_2F_2+RF_r \\ l_1'F_l+a_{11}F_1+a_{12}F_2+r_1'F_r \\ l_2'F_l+a_{21}F_1+a_{22}F_2+r_2'F_r \\ QF_l+d_1F_1+d_2F_2+SF_r \end{bmatrix} \quad \cdots\cdots\cdots\cdots\cdots [20]$$

Next, the input coefficient matrix $\overset{+}{A}$ after the sector integration is used to calculate the primary repercussion on final demand F:

Here,

$$\overset{+}{F}=\begin{bmatrix} F_l \\ F_1+F_2 \\ F_r \end{bmatrix}$$

When $\overset{+}{X}^1$ is defined as the vector of domestic production induced by the primary repercussion on the relevant sectors, we can define the following:

$$\overset{+}{X}^1=\begin{bmatrix} \overset{+}{X}_l^1 \\ \overset{+}{X}_{1+2}^1 \\ \overset{+}{X}_r^1 \end{bmatrix}=\overset{+}{A}\overset{+}{F}=\begin{bmatrix} PF_l+ \\ (l_1'+l_2')F_l+ \\ QF_l+ \end{bmatrix}$$

$$\begin{bmatrix} (\alpha u_1+\beta u_2)(F_1+F_2) & +RF_r \\ \{\alpha(a_{11}+a_{21})+\beta(a_{12}+a_{22})\}(F_1+F_2) & +(r_1'+r_2')F_r \\ (\alpha d_1+\beta d_2)(F_1+F_2) & +SF_r \end{bmatrix}$$

$\cdots\cdots\cdots\cdots\cdots$ [21]

Here, regardless of the status of integration, any F should meet the following conditions to make production inducements by the primary repercussion coincide:

$$\left.\begin{array}{c} X_l^1=\overset{+}{X}_l^1 \\ X_1^1+X_2^1=\overset{+}{X}_{1+2}^1 \\ X_r^1=\overset{+}{X}_r^1 \end{array}\right\} \quad \cdots\cdots\cdots\cdots\cdots [22]$$

If we substitute [20] and [21] into [22], we obtain the following from

$$\left.\begin{array}{c} u_1=u_2 \\ a_{11}+a_{21}=a_{12}+a_{22} \\ d_1=d_2 \end{array}\right\} \quad \cdots\cdots\cdots\cdots [22]'$$

As mentioned above, the equations in [22]' indicate conditions under which sector integration does not affect the magnitude of the primary repercussions. They can also be the conditions for the coincidence of the domestic production inducements. They can also be the conditions for the coincidence of the domestic production inducements, X_2 and $\overset{+}{X}^2$, due to the secondary repercussions obtained by replacing F of [20] and $\overset{+}{F}$ of [21] into X_I and $\overset{+}{X}^1$, respectively, and furthermore the conditions for the coincidence of the sizes of the ultimate repercussions (so-called "production inducements"). The conditions under which integration will not change production inducements at each sector specified in [22]'; that is, input coefficients of the respective sectors to be integrated should coincide with the input coefficients of the relevant sectors after integration. In other words, there are no changes in production inducements before and after integration only when the input coefficients representing the technological structures for production are identical.

Classifications of sectors in the Input-Output Tables for Japan are based on activities relating the types of goods and services. The above conditions indicate that the activity-based homogeneity is required for defining sectors. In this sense, they indicate the criteria and principles of section definition.

(2) Effects of Production Inducements on Other Sectors due to Sector Integration

Next, effects of sector integration on production inducements of other sectors will be considered. Here, to simplify the discussion, a certain sector (sector "l") is represented all sectors.

The conditions under which the sizes of primary repercussions before and after sector integration are identical are the ones give below from [22] above.

$$X_l^1=\overset{+}{X}_l^1$$

The condition derived from the above is:

$$u_1 = u_2$$

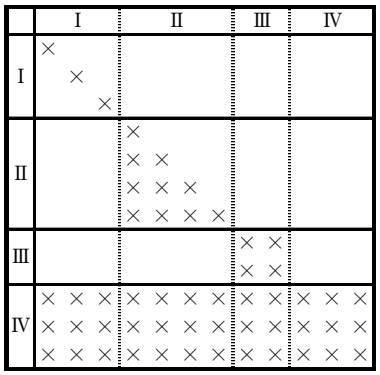
In other words, when the production coefficients from Sector *l* to Sector 1 and Sector 2 to be integrated are identical, the primary production repercussions on Sector *l* due to any final demand are identical before and after sector integration. However, for second and further repercussions, they generally do not coincide before and after integration.

Specifically, when the following can be defined,

$$u_1 = u_2 = 0 \quad and \quad R = 0$$

or, when sectors other than Sector *l*, which is under study, do not receive any input from Sector *l*, while sectors other than Sector *l* are integrated, no effects will be found in production inducements to Sector *l*.

A clearer overall picture of these relationships can be provided by blocking the input coefficient table modified as follows by maintaining the relationships between, and at the same time changing the orders of, the row and column sectors of the input coefficient tables.



(Note) All except "×" are "0."

Here, to analyze the repercussion effects from a certain final demand, for instance, only concerning Group I, regardless how Groups II, III, and IV are integrated, the production inducement effects at I are held constant. The same is true of Group II or Group III.

Or, when the relative ratios of final demands at the sectors to be integrated are equivalent to the respective domestic production ratios—that is, the following relations can be established:

$$F_1 : F_2 = X_1 : X_2 = \alpha : \beta \quad (\alpha + \beta = 1)$$

Here, the following can be defined.

$$X^1 = \begin{bmatrix} PF_l + (u_1 + \frac{\beta}{\alpha} u_2)F_1 + RF_r \\ l_1'F_l + (a_{11} + \frac{\beta}{\alpha} a_{12})F_1 + r_1'F_r \\ l_2'F_l + (a_{21} + \frac{\beta}{\alpha} a_{22})F_1 + r_2'F_r \\ QF_l + (d_1 + \frac{\beta}{\alpha} d_2)F_1 + SF_r \end{bmatrix}$$

$$\overset{+}{X}{}^1 = \begin{bmatrix} PF_l + (\alpha u_1 + \beta u_2) \\ (l_1' + l_2')F_l + \{\alpha(a_{11} + a_{21}) + \beta(a_{12} + a_{22})\} \\ QF_l + (\alpha d_1 + \beta d_2) \end{bmatrix} \times \begin{bmatrix} (1 + \frac{\beta}{\alpha})F_1 + RF_r \\ (1 + \frac{\beta}{\alpha})F_1 + (r_1' + r_2')F_r \\ (1 + \frac{\beta}{\alpha})F_1 + SF_r \end{bmatrix}$$

$$= \begin{bmatrix} PF_l + (u_1 + \frac{\beta}{\alpha} u_2)F_1 \\ (l_1' + l_2')F_l + \left\{(a_{11} + a_{21}) + \frac{\beta}{\alpha}(a_{12} + a_{22})\right\}F_1 \\ QF_l + (d_1 + \frac{\beta}{\alpha} d_2)F_1 \end{bmatrix} + \begin{bmatrix} RF_r \\ (r_1' + r_2')F_r \\ SF_r \end{bmatrix}$$

In other words, integrated X^1 corresponds to $\overset{+}{X}{}^1$.

(3) Conditions for Preventing Production Repercussion Effects due to Integration

The following conclusions summarize the above:

[1] When the input coefficients of the sectors to be integrated are identical to the input coefficients of the sectors after integration, production repercussions are completely identical for any final demand.

[2] When the input coefficients of the sectors to be integrated from the other specific sectors do not change before and after sector integration, the primary production repercussions on the specific sectors have not been changed with respect to any final demand.

[3] For sectors that have not received any input from certain specified sectors, whatever integration may take place, there is no effect on production repercussions on the specified sector.

[4] When the mutual ratios of the final demands at the sectors to be integrated are equal to those of the respec-

tive domestic productions, the primary production repercussions due to the final demands are identical in all relevant sectors.

Furthermore, when considering the inverse matrix model that accounts for imports, except for [3] above, another condition is added: that import ratios of the sectors to be affected by $[I-(I-\hat{M})A]^{-1}$ of the integration are equal. In this manner, except for such highly unusual cases in which input structures do not change before and after integration, it should always be kept in mind that the integration (or establishment) of sectors may cause different results to production repercussions and inducements.

3 Example of Sector Integration

Effects of example sector integration will be investigated using the 2015 Input-Output Table. The following two methods are used to calculate production inducements (by final demand item) of the 13 sectors classification and compare the results.

The $[I-(I-\hat{M})A]^{-1}$ type inverse matrix coefficient is used.

[1] Calculations are conducted with 187 sectors classification, then the results are integrated into 13 sectors classification.

[2] Calculations are conducted with 13 sectors classification from the beginning.

The comparison results are as indicated in Table 4-2, the figures represent the difference ratios of [2] against [1]. These figures make it quite clear that significant differences exist, particularly in the mining and the agriculture, forestry, and fishery sectors, suggesting notable effects from sector integration. In addition, looking at the weighted average figures of the absolute values of the above ratios by the weights of production inducements derived from [1] for each row and column (referred to as “deviation rates”), for which “Increase in stocks” in particular indicates greater figures for the respective final demand items.

In addition, instead of [2] above, the following were compared against [1]:

[2]′ After calculations are conducted with the major aggregated sector classification (37 sectors), the results are integrated into 13 sectors classification;

[2]″After calculations are conducted with the medium aggregated sector classification (107 sectors), the results are integrated into 13 sectors classification.

The results presented only in the form of deviation rates by the final demand items are shown in Table 4-3.

4 Summary

In Section 3 above, the integration to 13 sectors classification was reviewed for the sake of convenience. In actual analyses, however, integration is commonly conducted to 37 or more sectors classification. Still, the basic premise remains the same.

Given the recent remarkable progress in computing power, it is now recommended that integration be conducted after calculating as many sectors as possible. Computations should at least be performed for sector tables one stage higher than the one required for analysis at hand, specifically, when the results need to be compared for final demand items and respective sectors. However, in sector integration within the scope in which conditions specified in “2” may be satisfied even approximately, the production repercussion effects are not exceptional. Specifically, when only certain sectors are analyzed, “blocking” may realize effective sector integration.

Table 4-2 Difference in Production Inducement due to Sector Integration (Difference Ratio)

(%)

	Consumption expenditure outside households	Consumption expenditure (private)	Consumption expenditure of general government	Gross domestic fixed capital formation	Increase in stocks	Exports total	Devitation rate (λ_{i*})
01 Agriculture, forestry and fishery	-71.45	-37.77	119.87	294.03	-5.62	503.42	70.52
02 Mining	157.13	171.92	179.89	-67.39	-105.54	63.15	84.95
03 Manufacturing	-14.11	9.68	16.92	0.19	-232.46	-9.25	7.41
04 Construction	1.74	-3.32	-1.40	0.07	-273.11	6.88	0.24
05 Electricity, gas and water supply	-36.17	-3.28	9.30	17.55	-167.10	0.65	5.99
06 Commerce	-23.31	-2.03	5.86	5.92	8.53	7.05	4.16
07 Finance and insurance	-17.84	0.87	-1.16	-4.53	-4.85	-1.02	1.33
08 Real estate	-4.21	0.63	-4.39	-5.28	1.43	-7.98	1.13
09 Transport and postal services	-21.61	-0.38	11.30	-2.81	44.87	1.22	2.38
10 Information and communications	1.17	-7.85	50.05	6.29	9.08	-12.71	10.71
11 Public administration	2.94	0.22	-0.01	-3.00	138.50	5.94	0.07
12 Services	0.54	0.43	-0.38	-1.29	24.66	1.83	0.63
13 Activities not elsewhere classified	2.94	0.78	-1.77	-3.00	138.62	5.94	2.38
Devitation rate (λ_{*j})	11.00	4.09	3.99	2.60	-125.63	9.00	4.70

Note: i : Industrial sectors, j : Final demand sectors

Z_{ij} is calculated by 187 sectors and is integrated by 13 sectors.

Z'_{ij} is calculated by 13 sectors.

Difference ratio : $\rho_{ij} = \left(Z'_{ij} / Z_{ij} - 1\right) \times 100$

Deviation rate : $\lambda_{i*} = \sum_{j} \left(|\rho_{ij}| \times \frac{Z_{ij}}{\sum_{j} Z_{ij}} \right)$ $\lambda_{*j} = \sum_{i} \left(|\rho_{ij}| \times \frac{Z_{ij}}{\sum_{i} Z_{ij}} \right)$

$$\lambda_{ij} = \sum_{ij} \left(|\rho_{ij}| \times \frac{Z_{ij}}{\sum_{ij} Z_{ij}} \right)$$

Table 4-3 Deviation Rates by Final Demand Item at Each Aggregated Sector

(%)

	Consumption expenditure outside households	Consumption expenditure (private)	Consumption expenditure of general government	Gross domestic fixed capital formation	Increase in stocks	Exports total	Devitation rate (λ_{i*})
CASE [2] (13/190)	11.00	4.09	3.99	2.60	-125.63	9.00	4.70
CASE [2]′ (37/190)	5.49	1.22	2.09	2.34	-44.61	1.64	1.76
CASE [2]″ (108/190)	0.48	0.47	0.45	1.26	-7.99	1.74	0.85

§8 Precautions for Input-Output Analysis

Input-output analysis conducted by using input coefficients and inverse matrix coefficients plays an essential role in utilizing the Input-Output Tables. However, it must be noted that the following preconditions have to be considered in using the Tables.

1 Stability of Input Coefficients

As described in §1-3 in this Chapter, the input-output analysis is conducted on the premise of the stability of the input coefficients. In fact, however, it should be noted that the input coefficients may change as the year subjected to the analysis deviates from the year referred to for compiling the Table.

In addition, if the scale of production, demands, etc. is extremely different from that of the year referred to for table compilation, there is the possibility that the input structure has changed due to the effect of economies of scale. Accordingly, the analysis results should be interpreted and used with care.

Note that the "stability of input coefficients" is not discussed in terms of comparison with past tables; but, that does not mean that "the input structure is the same as that in the Input-Output Tables of the past year." The Input-Output Tables should be compiled based on the data of the year of compilation and even if the calculation result shows a change from the past tables in the input structure, that is not a problem in and of itself.

2 Other Points to Note

In addition to the notes about the stability of input coefficients stated in 1 above, note the following considerations:

(1) The Source of Generated Final Demand should not be Searched.

Multiplier effect analysis begins with providing the amount of demand as given data, but what gave rise to that demand is not considered.

For instance, in a household economy, an increase in some expenditures results in a decrease in other expenditures if there is no change in the income. The decrease in expenditure can be considered to cause a minus economic multiplier effect. Even if the consumption is continued by spending down the savings, the decrease in the savings may generate a minus economic multiplier effect via reduced investment.

Input-output analysis is assumed to be just an analysis in which just a part of a cycle of production, distribution and expenditure is highlighted with other parts being unchanged.

(2) Interruptions, etc. to the Multiplier Effect

In the following cases, there may be less multiplier effect than the analysis results in the short term due to interruptions, etc. to the multiplier effect:

[1] Even if demand rises, there is not always sufficient production capacity to respond to the relevant demand in each sector. When the risen demand exceeds the production capacity, interruption of the multiplier effect may actually occur.

[2] Even if demand rises, some sectors with surplus stocks might respond by releasing stocks. In that case, a strong multiplier effect should not be expected.

[3] As for the increase in employees that would be anticipated due to the increased demand, if the current employees are assigned to work overtime, the number of employees may not increase.

(3) Effect by Dummy Sectors, etc.

As for the endogenous sectors in the Basic Transaction Table, the sectors are classified based on activities. Among these, for the convenience of compilation of the Table, a "Dummy sector" is established, which cannot be considered an independent industrial sector. This increases the intermediate input ratios, thus expanding the multiplier effect.

(4) Period When Multiplier Effect is Seen

In input-output analysis, when the multiplier effect will be seen is not clear.

CHAPTER Ⅴ
SUPPLEMENTARY TABLES

The Basic Transaction Tables summarize transactions involving all goods and services produced for a period of one year, based on all available data. The 2015 Input-Output Tables are comprised of 509 row sectors and 391column sectors.

The core of the Input-Output Tables, the Basic Transaction Tables are compiled in accordance with certain rules, based on 68 SNA, 93 SNA and 2008 SNA advocated by the United Nations, as well as Input-Output Table compilation theories accumulated so far. However, it is difficult to incorporate all information into Basic Transaction Tables. To meet the purposes of various input-output analyses, supplementary information is required to compensate for the limitations of the Basic Transaction Tables.

Thus, in the 2015 Tables, the various supplementary tables below are compiled in accordance with their respective intended usage.

The “Table on Trade Margins,” “Table on Domestic Freights,” and “Table on Imports” represent a consolidation of information related to trade margins, domestic freights, and imports included in the Basic Transaction Table for the basic sector classification by each of the medium aggregated classifications (107 sectors), thus, following the 2011 Tables, they were categorized as part of the statistical tables for the medium aggregated classifications (provided only on the Internet). As a result, separate explanations of these tables are provided at the end of this chapter in [Reference 2] and [Reference 3].

1 Table on Value and Quantity

(1) Concepts

This table indicates the transacted quantities of major goods listed in the Basic Transaction Tables (Chart 5-1 [1]).

Ideally, in input-output analyses, Basic Transaction Tables would be based on the quantity of transactions between sectors to ensure the stability of input coefficients. Actually, given the various input materials in the column sectors, it is impossible to measure their size in a single numerical unit. The Basic Transaction Tables are thus based on monetary amounts. The tables on values and quantities are compiled to present quantitative data concerning the Basic Transaction Tables, although to limited extent.

Compiling tables on values and quantities of selected goods are compiled to provide physical data related to the Basic Transaction Tables, and make it possible to conduct

Chart 5-1 Relationship Between Transaction Table and Table on Value and Quantity

[1] Input-Output Tables at Producers’ Prices

	A	B	C	D	Consumption	Fixed capital formation, etc.	Exports	Domestic production
A	…	…	…	…	…	…	…	…
B	600 (40×15)	150 (10×15)	500 (25×20)	250 (10×25)	120 (4×30)	180 (9×20)	100 (5×20)	1900
C	…	…	…	…	…	…	…	…
D	…	…	…	…	…	…	…	…
Gross value added	… … …	… … …	… … …	… … …				
Domestic production	…	1900	…	…				

(Note) Figures in parentheses are quantity multiplied by unit price. The table on value and quantity of selected goods extracts and lists these parts.

[2] Table on Value and Quantity

		A	B	C	D	Consumption	Fixed capital formation, etc.	Exports	Domestic production
Sectors for major goods	A Quantity (unit price)	…	…	…	…	…	…	…	…
	A Monetary value (million yen)	…	…	…	…	…	…	…	…
	B Quantity (unit price)	40	10	25	10	4	9	5	103
	B Monetary value (million yen)	600	150	500	250	120	180	100	1900
	C Quantity (unit price)	…	…	…	…	…	…	…	…
	C Monetary value (million yen)	…	…	…	…	…	…	…	…
	⋮								

physical analyses of the prospects of supply and demand in energy and other subjects.

(2) Compilation Method

[1] The sectors for which the table on value and quantity of selected goods is compiled are producers of major materials, primarily basic materials, among the row sectors in the Basic Transaction Tables. Those with significant differences in price levels of detailed items comprising the row sectors and those for which multiple quantitative units are used to estimate detailed items are generally excluded.

[2] The table on value and quantity of selected goods is basically compiled by estimating transaction units for individual output destinations and using these units to calculate transaction quantities by output destination (monetary transaction amounts/transaction unit prices). The following was done for the 2015 Input-Output Tables.

i) Imported productions and domestic productions are separated and the transaction quantities by output destinations estimated.

ii) For imported productions, the quantities of ordinary trade are, in principle, taken from the Foreign Trade Statistics. The amounts of special trade and direct purchases are divided by the average unit prices of the ordinary trade to estimate the quantities. The total import quantities (ordinary trade, special trade and direct purchases) were estimated as import quantities by row. Then the import quantities are allocated to each column sector based on the proportion of import transactions in the output tables.

iii) For domestic production, the quantities of ordinary trades among exported productions are taken from the Foreign Trade Statistics. The amounts of special trades and direct purchases are derived from the average unit prices of the ordinary trades to estimate quantities, as in the case of estimates of import quantities. The domestic supply quantities for row section of the domestic production are estimated by deducting export quantities from the domestic production quantities by row acquired from Domestic Production Table by Sector and Commodity. Finally, the domestic supply quantities are allocated to each column sector based on the proportion of domestic transactions (transaction amounts at producers' prices – transaction amounts of imports) in output tables.

iv) For the transactions in which the amount, etc., of raw material input could be identified by various statistics, etc., [ii] and [iii] were compensated to the extent possible.

v) The quantities of domestic productions and imported productions compensated in iv) above are added to compile the tables on value and quantity.

(3) Precautions When Using

Tables on value and quantity are tables that express the transactions that are possible from among the individual transactions listed in the Basic Transaction Tables.

At this time, it is impossible to compile tables on values and quantities for all sectors for the following reasons:

[1] When compiling tables on value and quantity, it is presumed that transaction amounts for each commodity can be comprehended by "Quantity × Unit price." For services among the row sectors, however, it is extremely difficult to measure quantity units.

[2] In the goods sectors, there are cases in which multiple commodities are included in the same sector, making it impossible to calculate the amounts by row sector units.

[3] In sectors represented as "Miscellaneous …" and those related to processing and assembling, various commodities with different unit prices and units may be combined. In these sectors, quantity-based indication by row sector is almost meaningless.

[4] The availability of quantity-related information by output destination is significantly reduced.

Also, the limitations of the table on value and quantity must be kept in mind, since quantitative estimates are limited to specified sectors and estimation methods tend to be mechanical.

2 Table on Scrap and By-Products

(1) Concepts of Table on Scraps and By-products

"Scraps" and "By-products" may be treated in compiling the basic transaction tables by several different methods. The method applied in Japan is the "negative input method" (Stone method; refer to CHAPTER III). In the table of conventional basic transaction tables based on the negative

Chart 5-2 Relationship Between Transaction Table and Table on Scrap and By-Products

[1] Input-Output Tables at Producers' Price (Image of the 2000 Tables)

	A	B	C	D	Reuse and Recycling	Final demands	Imports	Domestic production
A		65	5	･･･	5 (5)	25 (△5)		100 (0)
B	45	20	△10 (△30)	50	35 (35)	60 (△5)		200 (0)
C	･･･	40	･･･	･･･	10 (0)	･･･		･･･ (0)
D	18 (△5)	30	･･･	･･･	5 (5)	･･･		･･･ (0)
Reuse and Recycling	18 (15)	18 (15)	･･･	34 (20)	･･･	･･･	△5 (△5)	65 (45)
Total value added	19	27	･ ･ ･	･ ･ ･	10			
Domestic production	100	200	･ ･ ･	･ ･ ･	65			

(Notes) 1 "Reuse and recycling" represents the "Reuse and recycling" sector. (same in table [2])

2 As for the figures in parentheses, the negative values (shown as △) are generated values of scrap and by-products while the positive values are input values before adding the processing costs (includes numbers).

3 Scrap and by-products generated are input into each sector via "Reuse and recycling."

[2] Input-Output Tables at Producers' Price (Image of the 2005 and Later Tables)

	A	B	C	D	Reuse and Recycling	Final demands	Imports	Domestic production
A		70 (5)	5		0	25 (△5)		100 (0)
B	60 (15)	20	△10 (△30)	70 (20)	0	60 (△5)		200 (0)
C	･･･	40	･･･	･･･	10	･･･		･･･ (0)
D	18 (△5)	40 (10)	･･･	･･･	0	･･･	△5 (△5)	･･･ (0)
Reuse and Recycling	3	3	･･･	14	･･･	･･･		20
Total value added	19	27	･･･	･･･	10			
Domestic production	100	200	･･･	･･･	20			

(Note) 1 Output scraps and by-products are directly input into sectors without going through "Reuse and recycling"

2 Only collection and processing are recorded in "Reuse and recycling."

[3] Table on scraps and by-products (Image of the 2005 and Later Tables)

Competing sector	Output Sector	Output	Input Sector	Input
A	Final demands	△ 5	B	5
B	C	△ 30	A	15
	Final demands	△ 5	D	20
	Total	△ 35	Total	35
C	･ ･ ･	･ ･ ･	･ ･ ･	･ ･ ･
D	A	△ 5	B	10
	Import	△ 5		
	Total	△ 10	Total	10

(Note 1) 1 "Competing sector" represents row sectors, and "Output Sector" represents column sectors.

2 "Competing sector" refers to sectors with a special number ("2" to "5") attached to the row sector classification code (7 digits), as outputs and inputs of scraps and by-products are recorded in such sectors.

For "By-products," although there are row sectors where such by-products are considered as being the main product, in terms of representation in the Basic Transaction Table based on basic sector classification, in order to distinctively record numbers related to output of main products and numbers related to output and input of by-products, sectors (competing sectors) with a special symbol ("4" or "5") attached to the classification code for row sectors related to main products are established separately, and figures are recorded in these sectors. The reason why they are referred to as "competing sectors" derives from the fact that although there is a difference depending on whether there is a special symbol attached, these sectors are established (competing) as row sectors of the same name as those for main products. "2111-018-4 LPG (liquefied petroleum gas)" and "2111-018-5 LPG (liquefied petroleum gas)" in Table 5-1 correspond to "Competing sectors."

For "Scraps," on the other hand, there are no sectors where scraps are treated as main products, and thus, only row sectors of "Used paper," "Scrap iron," and "Non-ferrous metal scrap" were established as dummy sectors. For other scraps, sectors for raw materials with which they are closely associated were established as competing sectors, and outputs and inputs are recorded in the corresponding sectors. To ensure uniformity with the terms that are used for by-products, row sectors related to scraps are also referred to as "competing sectors," and special symbols ("2" or "3") are also attached to the classification codes of the said sectors.

input method, the output of scraps and by-products is recorded as a negative value at the intersection of the competing sector (row) and the output sector (column), while the input is recorded as a positive value at the intersection of the competing sector (row) and demand sector (column), and production is offset to be zero.

Table 5-1 Example of Normal Sector and Competing Sectors in an Input Table

Column code and name Row code and name	Transaction value (Producers'Prices)	(Reference) How to read this table
2031-01 Petrochemical basic products		
…		
2111-018 LPG (liquefied petroleum gas)	49	Purchasing LPG from the sector that core business is producting LPG
2111-018-4 LPG (liquefied petroleum gas)	Competing sector 12714	Purchasing LPG that is generated as a by-product from the sector except LPG sector,
2111-018-5 LPG (liquefied petroleum gas)	-231734	LPG that is generated as a by-product in the process of the production activities of the petrochemical basic products

In light of the increasing interest in the environment in recent years, the "Reuse and recycling" sector was established in the 2000 Input-Output Tables. All scrap and by-products generated (negative) were output (positive) in the basic transaction tables to the said sector, and through that sector, output to each input sector, while generally maintaining the negative -input method. Imports/exports of scrap and by-products were recorded as a lump sum in the "Reuse and recycling" sector to stabilize the import coefficient and ensure analytical consistency. (Chart 5-2 [1]). However, in this table, all scraps and by-products were output from the single sector of "Reuse and recycling," making it impossible to determine specific goods and input values.

Accordingly, in the 2005 and Later Input-Output Tables, it was decided not to input the value of scrap and by-products to the "Reuse and recycling" sector, and only related expenses were counted. As with the 1995 Input-Output Tables and prior tables, the negative input method has been used for output and input of scraps and by-products. As a result, the output sector, output amount, input sector and input amount of "Scraps and by-products" by type of scrap or by-product, and the expenditures related to each were recorded respectively in the Basic Transaction Tables (Chart 5-2 [2]).

The "Table on scraps and by-products" thus clarifies the generation and input status of scraps and by-products by compiling the generated and input values of scraps and by-products, as compiled in Chart 5-2 [3].

(2) How to Compile the Table on Scraps and By-Products

Scraps and by-products can be distinguished from other transactions by appending the following special codes to sector codes when compiling the basic transaction tables.

Special code	Special classification
2	Scrap input
3	Scrap output
4	By-product input
5	By-product output

Actually, estimates involving to which column sectors output or input what types of scraps and by-products are generated as follows.

[1] Consumption of scraps and by-products is converted to a monetary value from various current surveys of industrial production. The generated monetary values were estimated through correspondence to the specific column sectors from the production technology structure.

[2] Of all the scrap, for scrap iron and non-ferrous metal scrap, consumption by each column sector was estimated from the Statistical Yearbook of Iron and Steel, Non-ferrous Metals, and Metal Products. Generated monetary values were estimated for each sector from the shipment amount of scrap in the Economic Census for Business Activity and input value of iron, etc., at each industrial sector.

[3] For used paper, the consumption values are estimated from consumption derived from the annual statistics, etc. on paper, printing, plastic products and rubber products.

3 Table on Employees Engaged in Production Activities (by Occupation)

(1) Concepts

The "Table on employees engaged in production activities" shows the amount of labor input in terms of the average number of people by each sector for production activities during one year by employment status, such as the number of employees (full-time, part-time, and day workers), number of paid directors, number of self-employed workers, and number of family workers. As in the Basic Transaction Table, the sector classifications of this table are based on activities.

The incomes of employees and paid directors correspond to the "compensation of employees" in the Basic Transaction Table, while those of self-employed workers and family workers are included in the "operating surplus."

From the table on persons engaged in production activi-

ties, the labor input coefficients and labor inducement coefficients corresponding to the input coefficients and production inducement coefficients, among others, are calculated. Labor input coefficients indicate the labor directly required for unit production, generally corresponding to the inverse of labor productivity. Labor inducement coefficients indicate how much labor is required for each sector to produce goods and services directly and indirectly induced by the increase of one unit of final demand.

These coefficients are used to identify the repercussion processes of changes in final demand on employment demand and entire employment demand figures, which enable analyses of labor force flow and employment structures, analyses of the effects of economic fluctuations on employment and employment demand prospects outlook, etc.

(2) Compilation Method

In compiling the table on persons engaged in production activities, firstly, the number of employees is estimated based on industrial classifications (does not necessary match the activity) using the Population Census, Employment Status Survey, Economic Census for Business Frame, and Labour Force Survey.

Then, a correspondence table consisting of industrial classifications and sector classifications is compiled, and the number of employees by industry is converted to the number of industries by column sector of the Basic Transaction Table. When doing so, the attempts are made to bring the industrial classifications as close as possible to activity concepts, by taking occupational structure and management structure into consideration.

In the end, if there is data from which activities can be further accurately comprehended, figures are replaced by values that are estimated based on such other data where necessary. In addition, consistency with employer income and wage per capita is also verified and revised.

4 Employment Matrix (Table on Employees Engaged in Production Activities [by Occupation])

(1) Concepts

The employment matrix gives a breakdown into occupational categories of paid directors and employees by production activity sectors, obtained from the above table on persons engaged in production activities. The employment matrix can indicate the number of employees by occupation and in terms of production activities. In addition, calculating occupational inducement coefficients makes it possible to analyze how many of what types of employees is required due to changing economic structures or other factors.

(2) Compilation Method

To compile the employment matrix, the occupational component ratios by industries are compiled for paid directors and employees from the Population Census data.

Next, by using the correspondence between “Sectors” of the Input-Output Tables and “Industries” of the Population Census, obtained during the employment table compilation process, the occupational component ratios by industries are transformed in accordance with the sector concepts of the medium aggregated sectors (107 sectors) of the Input-Output Tables (104 sectors in actuality, as “House rent (imputed rent),” “Self-transport,” and “Office supplies” are excluded).

Chart 5-3 Relationship Between Basic Transaction Table, Table on Persons Engaged in Production Activities and Employment Matrix

[1] Basic Transaction Table

	A B C…	Final demand	Domestic production
A B C ⋮			
Gross Value Added	Compensation of employees Operating surplus		
Domestic production			

[2] Table on Employees Engaged in Production Activities

	T0tal	Self-employed workers	Family workers	Paid directors・employees	Paid directors	Employees	Regular employees	Full-time employees	Part-time employees	Temporary employees	Per capita compensation of paid directors and employees	Per capita wages of regular employees
A	…	…	…	…	…	…	…	…	…	…		
B	75	10	5	60	10	50	35	23	12	15		
C	…	…	…	…	…	…	…	…	…	…		
⋮	…	…	…	…	…	…	…	…	…	…		
Total	…	…	…	…	…	…	…	…	…	…		

(Note) Since the incomes of self-employed workers occupy only part of the operating surpluses, and since family workers are in principle unpaid, these numbers are estimated, regardless of the gross value added.

[3] Table on Employees Engaged in Production Activities

	Occupation				
	Researchers	Engineers	Health care workers	・・・・・・・・・・・・	Total
A	…	…	…		…
B	5	12	8	・・・・・・・・・・・・	60
C	…	…	…	・・・・・・・・・・・・	…
⋮	…	…	…	・・・・・・・・・・・・	…
計	…	…	…	・・・・・・・・・・・・	…

(Note) The "Occupation" is classified into 227 types, including "Unable to classify."

Production activity sectors are comprised of 107 sectors of medium aggregated sector classifications (since "House rent (imputed rent)," "Self-transport" and "Office supplies" are excluded, the actual number is 104).

When making converting these ratios mechanically, there are instances where there is no consistency between the activity and occupation. Thus, by taking the definition of sectors into consideration, a process of eliminating occupations that should be categorized under other sectors and adding occupations that have been omitted is carried out.

Next adjustments are made so that the figures match with the range of the number of employees by sector estimated in the employment matrix.

Finally, consistency between the numbers of employees by occupation estimated by considering the number of those with public qualifications and the status of main and subsidiary businesses and the numbers of employees by occupation in respective sectors obtained above should be flowed up and reconciled.

5 Fixed Capital Matrix (Table on Fixed Capital Formation)

(1) Concepts

The "Gross domestic fixed capital formation" in the Input-Output Tables basically covers the transaction values of reproducible capital assets used for production repeatedly or continuously for one year or longer, including buildings, machinery, and equipment as well as growth and the increase of productive capital services provided by livestock and fruit trees. (please refer to "7411-00 Gross domestic fixed capital formation (public)" and "7511-00 Gross domestic fixed capital formation (private)" in Section 2, Chapter 7).

Beginning with the 1995 Input-Output Tables, the software industry has also been covered and mineral exploration is included under "Miscellaneous business services." Further, starting with the 2015 Input-Output Tables, research and development and defense equipment were capitalized. Also included in the Tables were brokerage fees, etc. on real estate transactions and remodeling and repair involving the enhancement of the functionality and/or life expectancy of buildings categorized in the "Repair of construction."

In the Basic Transaction Table, fixed capital formation is treated as "Total domestic fixed capital formation (public)" and "Total domestic fixed capital formation (private)" merely to record the total capital goods in the column vectors. It is thus impossible to identify how much capital formation has occurred in which sector.

The table on fixed capital formation (fixed capital matrix) supplements the Basic Transaction Tables. As indicated in Chart 5-4[2], the fixed capital matrix can indicate which and how much capital goods and have been purchased ("Capital formation") by which column sectors ("Capital formation sectors") for different investment entities (public or private). This data then makes it possible to conduct dynamic input-output analyses that treat capital formation values at column sectors as endogenous variables, and cost analyses including capital formation, etc.

The capital formation sectors at the top of the fixed capital matrix in Chart 5-4[2] are based in principle on the medium aggregated sector classifications (105 sectors).

Chart 5-4 Relationship Between the Basic Transaction Table and Fixed Capital Matrix

[1] Basic Transaction Table

	A	B	C	D	…	Consumption	Domestic total fixed capital formation (public)	Domestic total fixed capital formation (private)	Exports	Domestic production
A	…	…	…	…	…		200			
B	…	…	…	…	…		500			
C										
D										
・										
・										
・										
Gross value added										
Domestic production										

(Note) The fixed capital formation recorded in the final demand in a lump sum is distributed to output destinations to formulate the "Fixed capital matrix."

[2] Fixed Capital Matrix

Capital formation sector / Sector of capital goods	Total	Agriculture	Steel	Construction	…	Other: Road	Other: Housing	Other: …
A	200			50		100	50	
B	500	50	200	100			150	
C								
D								
・								
・								
Total								

(Note) Three types of tables are compiled: public, private, and public + private

Table 5-2 Detailed Classification and Scope in "Other"

Classification	Scope
Road	Road businesses (including maintenance, repair, restoration after disaster operations, etc.) and street business. However, toll road businesses are classified under "transportation services"
Housing	Owner-occupied units, built-for-sale units (urban renaissance agency, and private) (sold urban renaissance agency units are "private," but unsold ones are "public"). Rental units and company housing units are included in the "real estate (rental housing rents).
Environment and hygiene	City parks (including maintenance, repair, restoration after disaster operations, etc.), natural parks, public parks, drainage. Water-supply facilities and waste disposal facilities are classified under "water supply"
Land conservation	Soil conservation (including maintenance, repair and restoration after disaster operations), water control, and coastal preservation business
Land development	Residential land development, industrial land development, reclamation

Fixed capital formation includes general social capital, which cannot be treated as capital for production activities at specific sectors such as housing, roads, and parks. Such capital is defined as "Other" under the medium aggregated sector classification. The classifications and scopes are as indicated in Table 5-2.

Furthermore, in the fixed capital formation, the generated monetary value of scrap and by-products and cost trade are excluded from the scope of the fixed capital matrix.(Note)

(Note) The fixed capital matrix targets capital goods that were produced in the target year for compilation of Input-Output Tables, and that were recorded as domestic production.

Scraps and by-products consist of those that were output in the target year for compilation of Input-Output Tables, but as they were output collaterally in the process of production activities of other goods, they are recorded based on the negative input method and, as a result, are not included in domestic production of row sectors. As a result, they are excluded from the fixed capital matrix.

Cost trade is associated with, for example, transaction of secondhand goods, but the secondhand goods themselves that are subject to transactions are fundamentally not those that are produced in the target year for compilation of Input-Output Tables, and their prices are not recorded in the Basic Transaction Table. Accordingly, cost trade is not targeted in the fixed capital matrix.

(2) Compilation Method

Compilation of the fixed capital matrix for both the public and private sector capitals begins with estimates of breakdowns by output destination for the respective capital goods (capital formation sectors) undertaken by the relevant ministries and agencies of each kind of capital goods, based on data such as the Survey of Capital Goods Demand Structure, Economic Census for Business Activity, Survey of Building Construction Started, and domestic production in detailed items, etc. Necessary adjustments are then made between the relevant ministries and agencies of the capital formation sectors (column sectors).

All capital goods concerning the goods rental and leasing sectors are estimated by the Ownership approach.

6 Table on Commodity Output by Industry (Make table)

(1) Concepts

The Basic Transaction Table is a table of [row] commodity × [column] unit of production activity (activity). For activities of business sites that are producing and providing multiple types of goods and services, the table is compiled by classifying such goods and services in the corresponding multiple sectors in accordance with the type of each.

As a result, when analyzing the kinds of effects of production multiplier that will be obtained due to the results of analysis of Input-Output Tables in relation to each industry that is classified as a unit of business site, separate information that indicates the relationship between business sites and commodities becomes necessary.

In order to meet this kind of request, the table on commodity output by industry (hereinafter referred to as “V table”) indicates what kinds of goods and services are produced and provided by each industry, regardless of whether they are produced and provided as a main business or side business, by industry classifying of the business site (for activities of business sites that produce and provide multiple types of goods and services, industry classifying is based on the main types of goods and services).

The V table is a matrix representation where the side (rows) represents industry sectors and head (columns) represents commodity sectors. Accordingly, the row sum represents the total output by industry, and the column sum represents the total output by commodity.

The industry sectors on the side of the table are broadly divided into [1] market producers, [2] non-market producers (general government),** and [3] non-market producers (private non-profit institutions serving households),* depending on the transactor-based production activity classification. In principle, although these are established in a format where they correspond to medium aggregated classifications (107 sectors), segmentalization is carried out for some sectors. Also, the commodity sectors in the table head are set so that they correspond one-on-one in terms of format with the industry sectors on the side of the table. Accordingly, the V table is a square matrix table (table of 123 sectors) where rows are industry classifications and columns are commodity classifications.

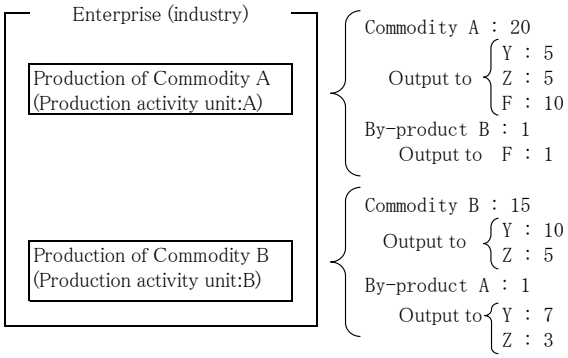
(2) Compilation Method

In compiling V table, the necessary numbers are obtained by carrying out recombined tabulation of shipment amounts by industry and by commodity that are obtained from the results of the Economic Census for Business Activity in accordance with the sector classifications of the V table. Furthermore, various statistical materials are used to carry out estimations and adjustments, and figures are established.

In the Basic Transaction Table, outputs of scraps and by-products that use the negative input method are not included in domestic production. However, the V table is compiled by including the outputs (absolute values) of scraps and by-products. As a result, the total by commodity (output by commodity = each row total in the V table) matches the total of “domestic production + the value of scraps and by-products (endogenous sectors)” (the value of scraps and by-products in the final demand sector are not recorded since they do not fall under the concept of the V table) (Chart 5-5[3]).

Chart 5-5 Enterprises and Production Activity Units

[1] Case



[2] Basic Transaction Table

		Intermediate demand					Final demand	Domestic production
		A	B		Y	Z	F	
Intermediate input	A	0	△10	…	12	8	10	20
	B	△1	…	…	10	5	1	15
		…	…	…	…	…	…	…
	Y	5	3	…	…	…	…	…
	Z	10	12	…	…	…	…	…
Gross value added		…	…	…	…	…		
		6	10	…	…	…		
		…	…	…	…	…		
Domestic production		20	15	…	…	…		

[3] V Table

		Product(goods and services)					Total
		A	B		Y	Z	
Industry	A	30	16	…	…	…	46
	B	…	…	…	…	…	…
		…	…	…	…	…	…
	Y	…	…	…	…	…	…
	Z	…	…	…	…	…	…
Total		30	16	…	…	…	…
Scrap and by-products		10	1	…	…	…	…
Domestic production		20	15	…	…	…	…

[Explanation]

Here, as shown in [1], a business site that produces Commodity A and Commodity B is envisioned.

At this business site, one unit of Commodity B is produced as a by-product in the process for producing 20 units of Commodity A. At the same time, 10 units of Commodity A are produced as a by-product in the process for producing 15 units of Commodity B.

As a result, as a whole, the business site produces 30 units of Commodity A and 16 units of Commodity B. Since Commodity A is the main product, the business site is classified as being of Industry A.

In the Basic Transaction Table ([2]), the by-product is negatively recorded in the output sector, and by recording this as a positive in the output destination, it is canceled out for the row sector. As a result, Commodity B (by-product) that is produced in production activities for Commodity A is recorded as "△1" at the intersection of [column] Sector A and [row] Sector B, and at the same time, "1" is recorded at the intersection of the output destination [column] F and [row] B, canceling each other out. In addition, Commodity A (by-product) that is output in the process of production activities for Commodity B is recorded as "△10" at the intersection of [column] Sector B and [row] Sector A. At the same time, "7" and "3" are included at the intersection of the output destinations [column] Y and [column] Z, respectively, with [row] B. As a result, in the Basic Transaction Table, domestic production of Commodity A is 20 and that of Commodity B is 15.

In the V table, ([3]), since the side of the table represents the industry classifying of the business site, the activities of this business site are all recorded in row A. Since the production amount of Commodity A was 30 units, including the output (absolute value) of by-products, and the production amount of Commodity B was 16 units, including the output (absolute value) of by-products, "30" is recorded at the intersection of [row] Sector A and [column] Sector A, and "16" is recorded at the intersection of [row] Sector A and [column] Sector B.

7 Table on Self-Transports

(1) Concepts

The table on self-transports indicates the detailed goods and services input for activities related to "Self-transport by private cars (passengers)" and "Self-transport by private cars (freight)," which are dummy sectors representing self-activities, under the column sector of the Basic Transaction Table (refer to Chart 5-6).

In Basic Transaction Table, expenses for fuel, non-life insurance, and auto repairs, etc., input by each column sector to conduct self-transport activities are not recorded directly at the intersection of the respective column sectors and the rows of the goods and services. Instead, the expenses required for self-transport activities for passenger and freight services are aggregated and the "Self-transport by private cars (passengers)" and "Self-transport by private cars (freight)" are regarded as input in a lump sum. It is thus impossible to identify the breakdown of the expenses required for the self-transport activities in each

column sector.

The table on self-transports is compiled as a supplementary table to fill the gap, revealing the input structure of goods and services required for self-transport activities at each column sector and the status of the output of goods and services required for self-transport activities to each column sector.

"Self-Transport" sector is dummy sector, and doesn't record value added.

(2) Compilation Method

The table on self-transports is compiled in parallel with the compilation of the Basic Transaction Table, as follows.

i) Each column sector distributes the expenses required for self-transport proportionately from the goods and services input to date, accumulates these figures, and estimates the inputs for "Self-transport by private cars (passengers)" and "Self-transport by private cars (freight)."

ii) In parallel with i), inputs of goods and services are estimated from various data for private automobiles in both sectors of "Self-transport by private cars (passengers)" and "Self-transport by private cars (freight)." The output of each column is also estimated. Input and output to the private automobile sector are established by making the necessary adjustments with the relevant sectors.

iii) With the input of the self-transport sector obtained in ii) above and the output of the self-transport sector to each column as CT (Control Totals), the table on self-transport of the preceding table and various data on the subsequent changes of the self-transport activities at each industry are used to distribute the input of the column sectors, which are then adjusted with the output sectors (including readjustments for cases in which the figures of ii) need to be changed at this stage) to complete the table on self-transport.

The Basic Transaction Table has been compiled in two formats: one indicating the self-transport sectors at columns and rows, and one not setting self-transport sectors, with each sector directly inputting goods and services related to self-transport. The two formats are offered to meet varying needs.

Chart 5-6 Relationship Between Basic Transaction Table and Table on Self-Transports

[1] Basic Transaction Table

	A	B	C	D	Self-transport	E	Final demand	Domestic production
A			(5)		20			
B		Disaggregated	(20)		80			
C			(5)		30			
D			(0)		10			
Self-transport	20	40	30	50	(0)	10	·····	150
E			(0)		10			
Gross value added					⋮ 0			
Domestic production					150			

(Note) Expenses concerning self-transport aggregated and recorded in the self-transport sectors in the rows of the Basic Transaction Table are disaggregated into each row sector to produce the table on self-transports.

[2] Table on Self-Transports

	A	B	C	D	E	Total
A	···	···	5	···	···	20
B	···	···	20	···	···	80
C	4	8	5	10	3	30
D	···	···	0	···	···	10
E	···	···	0	···	···	10
Total	20	40	30	50	10	150

(Note) [2] is a representational image of Sector C from [1]

〔Reference 2〕 Table on Trade Margins and Table on Domestic Freights

(1) Concepts

These two tables show, in matrix form, distribution expenses, or trade margins and domestic freight, for transactions involving goods between each sector recorded in the Basic Transaction Table.

In the Basic Transaction Table (output table), trade margins (wholesale and retail trade margins) and domestic freights (freights for seven transport modes) that are included in individual transaction amounts are represented in the basic sector classification (509 row sectors × 391 column sectors) and minor aggregated classification (187 sectors). However, it is not possible to extract and form a list of only the state of trade margins and domestic freights.

Thus, the "Table on Trade Margins" and "Table on Domestic Freights" are compiled (provided on the Internet), in which the trade margin amounts and domestic freight amounts that are included in individual transaction amounts are extracted and made into a list using medium aggregated classification (107 sectors).

(2) Types and Scopes of Tables on Trade Margins and Tables on Domestic Freights

[1] Tables on trade margins

Tables on trade margins are compiled for wholesale margins and retail trade margins. They do not include commissions received by agencies from the import and export of goods (recorded in "special trade") and cost trade margins, such as trade margins derived from second-hand goods. In addition, freight paid by trade sectors is excluded from trade margins that treated as domestic freight.

[2] Tables on domestic freights

Tables on domestic freights are compiled for domestic freight and fees derived from operating transportation activities.

Freight incurred outside the Japanese territory in international transportation and "cost transport margins" are not counted as domestic freight.

Tables on domestic freights are compiled by estimating the transportation expenses incurred in each transaction by the following seven transport modes:

i) Railway freight transport

ii) Road freight transport (except self-transport)

iii) Coastal and inland water freight transport

iv) Port transport

v) Domestic air freight transport

vi) Handling of freight transport

vii) Warehouse

Chart 5-7 Relationships Between Basic Transaction Tables and Tables on Trade Margins and Tables on Domestic Freights

[1] Input-Output Table at Producers' Prices (Model)

		Intermediate demand					Final demand	Domestic production
		A	B	C	Commerce	Transport	·····	
Intermediate input	A		20					
	B	40	40	70	40	10	····· 100	300
	C		110					
	Commerce		Trade margins 50				···	900
	Transport		Domestic freights 30				···	700
Gross value added	⋮		⋮					
			50					
Domestic production			300					

(Note) Input-Output Tables at purchasers' prices can be compiled by recording the trade margins and domestic freights recorded as a lump sum at the intersections of the commerce (row) and the transport (row) at each demanding sector (column) in the Basic Transaction Tables, by input goods of the relevant column sectors.

[2] Input-Output Table at Purchasers' Price (Model)

		Intermediate demand					Final demand	Total demand	Deduction		Domestic production
		A	B	C	Commerce	Transport	·····		Trade margins	Domestic freight	
Intermediate input	A		30 (5+5)								
	B	55 (10+5)	55 (10+5)	90 (12+8)	70 (18+12)	15 (3+2)	····· 125 (17+8)	410	-70	-40	300
	C		165 (35+20)								
	Commerce		0					0	900	0	900
	Transport		0					0	0	700	700
Gross value added	⋮		⋮								
			50								
Domestic production			300								

(Note) The values inside the parentheses ( ) signify "(Trade margins + Domestic freights)," and schematically indicate the relationship that they are numbers included in transaction amounts. These values are extracted and turned into the lists in "Table on Trade Margins" ([3]) and "Table on Domestic Freights" ([4]) based on the medium aggregated classification.

In the actual Input-Output Table at purchasers' price, the trade margins (wholesale and retail trade margins) and domestic freights (freights for seven transport modes) for individual transaction amounts are represented in the output tables for basic sector classification and minor aggregated classification.

[3] Table on Trade Margins (Model)

		Intermediate demand					Final demand	Total
		A	B	C	Commerce	Transport	·····	
Intermediate input	A		5					
	B	10	10	12	18	3	17	70
	C		35					
	Commerce		-50					-900
	Transport		0					
Total			0					0

(Note) This is compiled by removing trade margins from the Input-Output Table at purchasers' price.

[4] Table on Domestic Freights (Model))

		Intermediate demand					Final demand	Total
		A	B	C	Commerce	Transport	·····	
Intermediate input	A		5					
	B	5	5	8	12	2	8	40
	C		20					
	Commerce		0					0
	Transport		-30					-700
Total			0					0

(Note) This is compiled by taking out domestic freight from the Input-Output Table at purchasers' price.

(3) Compilation Method of Table on Trade Margins

Tables on trade margins are compiled in the following manner.

[1] Estimating the total trade margins by wholesale and retail trade

By correcting the results of recombined tabulation of the "Economic Census for Business Activity," the total trade margins by wholesale and retail are estimated. This total amount is the domestic production amount for the wholesale and retail industries. (Cost trade is not included.)

[2] Estimating the total trade margins by row sector

The total trade margins by wholesale and retail are estimated by each row sector in the Input-Output Tables. However, there is an irregularity between the treatment of the trade items in the Economic Census for Business Activity and the row sectors in the Input-Output Tables; thus, the trade margins by row sector is estimated by also referring to the result of the trade margin survey (margin ratios by goods).

[3] Estimating the transaction value subject to trade margins

For the transactions of goods, trade margins are not necessarily applied to all goods and even if applied, the margin ratios differ between transactions. So, the "Table of Ratios Not Subject to Trade Margins" is compiled by estimating which transactions are free from the trade margins.

The factors generating difference in the ratios not subject to trade margins in different transactions may include the following:

i) Consumption in one's own factory

ii) Consumption in other factories of one's own company

iii) Direct sales to other companies (without intermediary wholesale or retail trade; as for wholesale trade, direct sales without intermediary retail trade)

iv) Whether there is a ratio of discount margins

v) Whether there is a kickback

vi) Differences between distribution systems

vii) Whether there is multistage distribution (such as first, second, and third wholesale)

viii) Differences due to large- and small-sized transactions

[4] Estimating trade margins by each transaction

Wholesale and retail trade margins are estimated by each transaction based on the results of [2] and [3].

(4) Compilation Method of Table on Domestic Freights

Overviews of the method of compiling the tables on domestic freight are as follows.

[1] Estimating domestic production in the transport sector

"Total freight charges" as domestic production in transport sectors, including cost transport margins, is estimated for seven transport modes.

Aggregate domestic production in the transport sector (CT) ① for the seven transport modes.

			CT
Transport			①
CT			

[2] Estimating freight by row sector (transport commodities)

First, classify the freight established by the seven transport modes broadly for the respective transport commodity groups, then gradually divide into smaller commodity groups. Finally, estimate freight by row sector (transport commodities).

Next, estimate the freight by row sector (*F*) ②. The total of ② is equal to ①.

		CT	F
			②
Transport		①	
			②

		CT	F	Domestic freight
			F'	Cost transport margin
			F_i'	③
Transport		①		
			F_i'	③

[3] Separation of cost transport margins

From the freight established for the respective row sectors, deduct the cost transport margins by row sector (commodities) estimated separately. Estimate the freight by row sector to be covered by the freight.

[4] Estimating the transaction value subject to freight

Not all transactions involving goods require transportation charges, nor is the ratio of freight in all transactions constant. In consideration of these facts, assess which part of each transaction value, by each commodity, is subject to freight and, contrarily, which part is not subject to freight. At the same time, the "Table of the Ratio Not Subject to Freight" by each transaction is compiled in view of the ratio of freight in the transactions subject to freight.

The following factors presumably caused the differences in the ratio not subject to freight in different transactions:

- Whether the portion was consumed in one's own factory and its ratio
- The ratio of the self-transport portion
- Whether pipeline transport is involved
- Difference in the distance of transport
- Whether discount freight is applied

Next, the "transaction value subject to freight in each transaction" is computed by multiplying each transaction value by [1 - the ratio not subject to freight]. Then, this is totaled by row sector, and the "transaction value subject to freight by row sector" is estimated.

[5] Computation of freight by each transaction

The ratio of freight by row sector to the transaction value subject to freight by row sector is defined as the "ratio of freight by row sector." "freight by each transaction" is computed by multiplying the "ratio of freight by row sector" by the transaction value subject to freight by each transaction obtained in iv).

$$F'_{ij}=X'_{ij}\frac{F'_i}{X'_i}$$

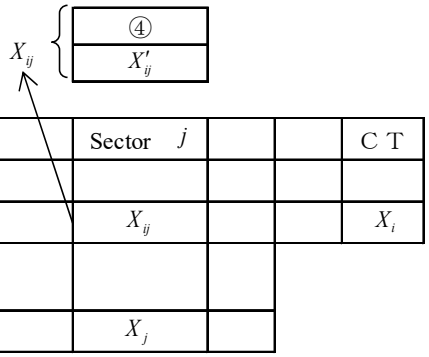
Notes:

F'_{ij} : Freight by each transaction excluding cost transport margins

X'_{ij} : Transaction value subject to freight by each transaction excluding cost transport margins

F'_i : Freight by row sector excluding cost transport margins

X'_i : Transaction value subject to freight by row sector excluding cost transport margins



$\frac{④}{X_{ij}}=n_{ij}=$ Freight non-coverage ratios

$\sum_j X'_{ij}=X'_i=$ Transaction to be covered by freight in Sector i

$\frac{F'_i}{X'_i}=$ Freight ratio in Sector i

[Reference 3] Table on Imports

(1) Concepts

The Table on Imports specially targets the imports included in transactions between each sector represented in the Basic Transaction Table (total of ordinary trade, special trade, direct purchases, customs duties, as well as import commodity taxes), and shows these imports in the form a matrix.

For the basic sector classification (509 row sectors × 391 column sectors) and minor aggregated classification (187 sectors), the imports included in individual transaction amounts are included in the Basic Transaction Table (input table/output table), but it is not possible to extract and form a list of only the state of imports.

Thus, the imports included in individual transaction amounts are extracted, and a "Table on Import" that makes these imports into a list based on the medium aggregated classification (107 sectors) is compiled (provided on the Internet).

Chart 5-8 Relationship Between Basic Transaction Table and Table on Imports

[1] Input-Output Tables at Producers' Price (Model)

	A	B	C	D	Consumption	Fixed capital formation, etc.	Exports	Import deduction	Domestic production
A	…	60 (10)	…	…	…	…	…	…	…
B	20 (5)	10 (0)	50 (15)	10 (0)	20 (10)	15 (5)	10 (0)	-35 (-35)	100
C	…	10 (5)	…	…	…	…	…	…	…
D	…	5 (0)	…	…	…	…	…	…	…
Gross value added	… … …	… … 15	… … …	… … …					
Domestic production	…	100	…	…					

(Note) Figures in parentheses indicate transaction amounts for imported goods and are included in the above figures.

[2] Table on Import (Model)

	A	B	C	D	Consumption	Fixed capital formation, etc.	Exports	Total
A	…	10	…	…	…	…	…	…
B	5	0	15	0	10	5	0	35
C	…	5	…	…	…	…	…	…
D	…	0	…	…	…	…	…	…
	…	15	…	…	…	…	…	…

(2) Compilation Method

In compilation of the table on imports, the demand figures for each column sector are estimated for "ordinary trade," "special trade," "direct purchases," "customs duties," and "import commodity taxes" in the respective row sectors. Estimates are made as follows:

[1] Ordinary trade

Imports by row sector in the Basic Transaction Tables (row vector) are first calculated by reclassifying the Foreign Trade Statistics to the Input-Output Table sectors. For these imports, demand figures for respective row sectors are then estimated, based on the product characteristics of the individual imported goods belonging to each row sector (Note: 9-digit items of the HS classifications) and the preliminary import tables.

[2] Special trade

Demand sectors are determined in accordance with the product characteristics of the goods and services to distribute import figures by row sector.

As for row sectors for which demand sectors cannot be determined, distributions are made using the import coefficients of the row sectors (imports [absolute values] / domestic demand values).

[3] Direct purchases

Total amounts are recorded in household consumption expenditure sectors, based on the concepts, definitions and scopes.

[4] Custom duties

Individual import items (9-digit items of HS classification) have been examined to determine whether customs duties are applied; if so, they are estimated accordingly.

As for imported items for which application of the customs duties cannot be determined, duties are distributed in accordance with the ratios of demanders to the imports by row sector concerning ordinary trade.

[5] Import commodity taxes

Determine the demand sectors for import items to be taxed. Taxes are distributed in accordance with the transaction ratios of the relevant sectors. Consumption taxes on imported items are distributed in accordance with the ratios of demand sectors to ordinary trade to which is added customs duties and import commodity taxes.

Import tables based on the basic sector classification (509 row sectors × 391 column sectors) and the minor aggregated sector classification (187 sectors) are not compiled. However, the functions of import tables are secured by indicating import breakdowns for individual transactions in the "output tables" and in the "input tables."

(Note) Used in the import item list of the Monthly Trade Statistics (Ministry of Finance), these are 9-digit codes regulated in accordance with the HS (Harmonized Commodity Description and Coding System: a unified system of product names and classifications) Treaty.

CHAPTER Ⅵ
SECTOR CLASSIFICATION (Basic Sector, Aggregated Sector, and Special Classification)

1 Basic Sector Classification and Aggregated Sector Classification

Endogeneous Sectors

1 Basic Sector Classification (509 Rows x 391 Columns)			2 Aggregated Sector Classification					
			187 Sector Classification		107 Sector Classification		37 Sector Classification	
Classification Code		Sector Name	Code	Sector Name	Code	Sector Name	Code	Sector Name
Column Code	Row Code							
0111 -01		Rice	0111	Grains	011	Crop cultivation	01	Agriculture, forestry and fishery
	0111 -011	Rice						
	0111 -012	Rice straw						
0111 -02		Wheat, barley and the like						
	0111 -021	Wheat						
	0111 -022	Barley						
0112 -01		Potatoes and sweet potatoes	0112	Potatoes, beans				
	0112 -011	Sweet potatoes						
	0112 -012	Potatoes						
0112 -02		Pulses						
	0112 -021	Soybeans						
	0112 -029	Miscellaneous pulses						
	0113 -001	Vegetables	0113	Vegetables				
0113 -01		Vegetables (outdoor)						
0113 -02		Vegetables (under facilities)						
0114 -01	0114 -011	Fruits	0114	Fruits				
0115 -01	0115 -011	Sugar crops	0115	Miscellaneous edible crops				
0115 -02		Crops for beverages						
	0115 -021	Green coffee and cocoa beans (imported)						
	0115 -029	Miscellaneous crops for beverages						
0115 -09		Miscellaneous edible crops						
	0115 -091	Miscellaneous cereals						
	0115 -099	Edible crops, n.e.c.						
0116 -01	0116 -011	Feed and forage crops	0116	Inedible crops				
0116 -02	0116 -021	Seeds and seedlings						
0116 -03	0116 -031	Flowers and plants						
0116 -09		Miscellaneous inedible crops						
	0116 -091	Leaf tobacco						
	0116 -092	Raw rubber (imported)						
	0116 -093	Raw cotton (imported)						
	0116 -099	Inedible crops, n.e.c.						
0121 -01		Dairy cattle farming	0121	Livestock	012	Livestock		
	0121 -011	Raw milk						
	0121 -019	Miscellaneous dairy farming products						
0121 -02	0121 -021	Beef cattle						
0121 -03	0121 -031	Hogs						
0121 -04	0121 -041	Hen eggs						
0121 -05	0121 -051	Chickens						
0121 -09	0121 -099	Miscellaneous livestock						
0131 -01	0131 -011	Veterinary service	0131	Agricultural services	013	Agricultural services		
0131 -02	0131 -021	Agricultural services (except veterinary service)						
0151 -01	0151 -011	Silviculture	0151	Silviculture	015	Forestry		
0152 -01	0152 -011	Logs	0152	Logs				
0153 -01	0153 -011	Special forest products (including hunting)	0153	Special forest products				
0171 -01	0171 -011	Marine fishery	0171	Marine fishery	017	Fishery		
0171 -02	0171 -021	Marine aquaculture						
	0172 -001	Inland water fishery and inland water aquaculture	0172	Inland water fishery				
0172 -01		Inland water fishery						
0172 -02		Inland water aquaculture						
0611 -01		Coal mining, crude petroleum and natural gas	0611	Coal mining, crude petroleum and natural gas	061	Coal mining, crude petroleum and natural gas	06	Mining
	0611 -011	Coal mining						
	0611 -012	Crude petroleum						
	0611 -013	Natural gas						
0621 -01	0621 -011	Gravel and quarrying	0621	Gravel and quarrying	062	Miscellaneous mining industry		
0621 -02	0621 -021	Crushed stones						
0629 -09		Miscellaneous ores	0629	Miscellaneous ores				
	0629 -091	Iron ores						
	0629 -092	Non-ferrous metallic ores						
	0629 -093	Limestone						
	0629 -094	Materials for ceramics (except limestone)						
	0629 -099	Ores, n.e.c.						
1111 -01		Meat	1111	Dairy products	111	Foods	11	Beverages and Foods
	1111 -011	Beef						
	1111 -012	Pork						
	1111 -013	Chicken meat						
	1111 -014	Miscellaneous meat						
	1111 -015	By-products of slaughtering and meat processing						
1111 -02		Dairy farm products						
	1111 -021	Drinking milk						
	1111 -022	Dairy products						
1111 -09	1111 -099	Miscellaneous livestock products						

1 Basic Sector Classification (509 Rows x 391 Columns)			2 Aggregated Sector Classification					
			187 Sector Classification		107 Sector Classification		37 Sector Classification	
Classification Code		Sector Name	Code	Sector Name	Code	Sector Name	Code	Sector Name
Column Code	Row Code							
1112 -01	1112 -011	Frozen fish and shellfish	1112	Processed seafood				
1112 -02	1112 -021	Salted, dried or smoked seafood						
1112 -03	1112 -031	Bottled or canned seafood						
1112 -04	1112 -041	Fish paste						
1112 -09	1112 -099	Miscellaneous processed seafood						
1113 -01		Grain milling	1113	Grain milling				
	1113 -011	Milled rice						
	1113 -019	Miscellaneous grain milling						
1113 -02		Flour and miscellaneous grain milled products						
	1113 -021	Wheat flour						
	1113 -029	Miscellaneous grain milled products						
1114 -01	1114 -011	Noodles	1114	Noodles, bread, confectionery				
1114 -02	1114 -021	Bread						
1114 -03	1114 -031	Confectionery						
1115 -01	1115 -011	Preserved agricultural foodstuffs	1115	Preserved agricultural food stuffs				
1116 -01		Sugar	1116	Sugar, oils, condiments and seasoning				
	1116 -011	Refined sugar						
	1116 -019	Miscellaneous sugar and by-products of sugar manufacturing						
1116 -02	1116 -021	Starch						
1116 -03	1116 -031	Dextrose, syrup and isomerized sugar						
1116 -04		Animal oil and fats, vegetable oil and meal						
	1116 -041	Vegetable oil						
	1116 -042	Animal oils and fats						
	1116 -043	Cooking oil						
	1116 -044	Vegetable meal						
1116 -05	1116 -051	Condiments and seasonings						
1119 -01	1119 -011	Prepared frozen foods	1119	Miscellaneous foods				
1119 -02	1119 -021	Retort foods						
1119 -03	1119 -031	Dishes, sushi and lunch boxes						
1119 -09	1119 -099	Miscellaneous foods						
1121 -01	1121 -011	Refined sake	1121	Liquors	112	Beverage		
1121 -02	1121 -021	Malt liquors						
1121 -03	1121 -031	Whiskey and brandy						
1121 -09	1121 -099	Miscellaneous liquors						
1129 -01	1129 -011	Tea and roasted coffee	1129	Miscellaneous drinks				
1129 -02	1129 -021	Soft drinks						
1129 -03	1129 -031	Manufactured ice						
1131 -01	1131 -011	Feeds	1131	Feeds and organic fertilizers, n.e.c.	113	Feeds and organic fertilizer, n.e.c.		
1131 -02	1131 -021	Organic fertilizers, n.e.c.						
1141 -01	1141 -011	Tobacco	1141	Tobacco	114	Tobacco		
1511 -01	1511 -011	Fiber yarns	1511	Fiber yarns	151	Textile products	15	Textile products
1512 -01	1512 -011	Cotton and staple fiber fabrics (including fabrics of synthetic spun fibers)	1512	Fiber fabrics				
1512 -02	1512 -021	Silk and artificial silk fabrics (including fabrics of synthetic filament fibers)						
1512 -09	1512 -099	Miscellaneous fabrics						
1513 -01	1513 -011	Knitting fabrics	1513	Knitting fabrics				
1514 -01	1514 -011	Yarn and fabric dyeing and finishing (processing on commission only)	1514	Yarn and fabric dyeing and finishing				
1519 -09		Miscellaneous fabricated textile products	1519	Miscellaneous fabricated textile products				
	1519 -091	Ropes and nets						
	1519 -099	Fabricated textiles products, n.e.c.						
1521 -01	1521 -011	Woven fabric apparel	1521	Woven fabric and knitted Apparel	152	Wearing apparel and miscellaneous ready-made textile products		
1521 -02	1521 -021	Knitted apparel						
1522 -09	1522 -099	Miscellaneous wearing apparel and clothing accessories	1522	Miscellaneous wearing apparel and clothing accessories				
1529 -01	1529 -011	Bedding	1529	Miscellaneous ready-made textile products				
1529 -02	1529 -021	Carpets and floor mats						
1529 -09		Miscellaneous ready-made textile products						
	1529 -091	Fabricated textiles for medical use						
	1529 -099	Ready-made textile products, n.e.c.						
1611 -01	1611 -011	Timber	1611	Lumber	161	Lumber and wood products	16	Pulp, paper and wooden products
1611 -02	1611 -021	Plywood, glued laminated timber						
1611 -03	1611 -031	Wooden chips						
1619 -09		Miscellaneous wooden products	1619	Miscellaneous wooden products				
	1619 -091	Wooden products for construction						
	1619 -099	Wooden products, n.e.c.						
1621 -01	1621 -011	Wooden furniture	1621	Furniture and fixtures	162	Furniture and fixtures		
1621 -02	1621 -021	Metallic furniture						
1621 -03	1621 -031	Wooden fixtures						
1621 -09	1621 -099	Miscellaneous furniture and fixtures						
1631 -01	1631 -011	Pulp	1631	Pulp	163	Pulp, paper, paperboard, coated and glazed paper		
	1631 -021P	Used paper						

1 Basic Sector Classification (509 Rows x 391 Columns)			2 Aggregated Sector Classification					
			187 Sector Classification		107 Sector Classification		37 Sector Classification	
Classification Code		Sector Name	Code	Sector Name	Code	Sector Name	Code	Sector Name
Column Code	Row Code							
1632 -01	1632 -011	Paper	1632	Paper, paperboard				
1632 -02	1632 -021	Paperboard						
1633 -01	1633 -011	Corrugated cardboard	1633	Coated and glazed paper				
1633 -02	1633 -021	Coated paper and building (construction) paper						
1641 -01	1641 -011	Corrugated card board boxes	1641	Paper containers	164	Paper products		
1641 -09	1641 -099	Miscellaneous paper containers						
1649 -01	1649 -011	Paper textile for medical use	1649	Miscellaneous processed paper products				
1649 -09	1649 -099	Miscellaneous pulp, paper and processed paper products						
1911 -01	1911 -011	Printing, plate making and book binding	1911	Printing, plate making and book binding	191	Printing, plate making and book binding	39	Miscellaneous manufacturing products
2011 -01	2011 -011	Chemical fertilizer	2011	Chemical fertilizer	201	Chemical fertilizer	20	Chemical products
2021 -01		Industrial soda chemicals	2021	Industrial soda chemicals	202	Industrial inorganic chemicals		
	2021 -011	Soda ash						
	2021 -012	Caustic soda						
	2021 -013	Liquid chlorine						
	2021 -019	Miscellaneous industrial soda chemicals						
2029 -01		Inorganic pigment	2029	Miscellaneous industrial inorganic chemicals				
	2029 -011	Titanium oxide						
	2029 -012	Carbon black						
	2029 -019	Miscellaneous inorganic pigments						
2029 -02	2029 -021	Compressed gas and liquefied gas						
2029 -03		Salt						
	2029 -031	Crude salt						
	2029 -032	Salt						
2029 -09	2029 -099	Miscellaneous industrial inorganic chemicals						
2031 -01		Petrochemical basic products	2031	Petrochemical basic products	203	Petrochemical basic products		
	2031 -011	Ethylene						
	2031 -012	Propylene						
	2031 -019	Miscellaneous petrochemical basic products						
2031 -02		Petrochemical aromatic products (except synthetic resin)						
	2031 -021	Pure benzene						
	2031 -022	Pure toluene						
	2031 -023	Xylene						
	2031 -029	Miscellaneous petrochemical aromatic products						
2041 -01		Aliphatic intermediates	2041	Aliphatic intermediates, cyclic intermediates, synthetic dyes and organic pigments	204	Organic chemical products (except petrochemical basic products or synthetic resins)		
	2041 -011	Synthetic octanol and synthetic butanol						
	2041 -012	Acetic acid						
	2041 -013	Ethylene dichloride						
	2041 -014	Acrylonitrile						
	2041 -015	Ethylene glycol						
	2041 -016	Acetic acid vinyl monomer						
	2041 -019	Miscellaneous aliphatic intermediates						
2041 -02		Cyclic intermediates, synthetic dyes and organic pigments						
	2041 -021	Synthetic dyes and organic pigments						
	2041 -022	Styrene monomer						
	2041 -023	Synthetic phenol						
	2041 -024	Terephthalic acid and dimethyl terephthalate						
	2041 -025	Capro lactam						
	2041 -029	Miscellaneous cyclic intermediates						
2042 -01	2042 -011	Synthetic rubber	2042	Synthetic rubber				
2049 -01	2049 -011	Methane derivatives	2049	Miscellaneous basic organic chemical products				
2049 -02	2049 -021	Plasticizers						
2049 -09	2049 -099	Miscellaneous industrial organic chemicals						
2051 -01	2051 -011	Thermo-setting resins	2051	Synthetic resins	205	Synthetic resins		
2051 -02		Thermoplastics resins						
	2051 -021	Polyethylene (low density)						
	2051 -022	Polyethylene (high density)						
	2051 -023	Polystyrene						
	2051 -024	Polypropylene						
	2051 -025	Vinyl chloride resins						
2051 -03	2051 -031	High function resins						
2051 -09	2051 -099	Miscellaneous synthetic resins						
2061 -01		Chemical fibers	2061	Synthetic fibers	206	Synthetic fibers		
	2061 -011	Rayon and acetate						
	2061 -012	Synthetic fibers						
2071 -01	2071 -011	Medicaments	2071	Medicaments	207	Medicaments		
2081 -01		Oil and fat products and surface-active agents	2081	Oil and fat products and surface-active agents	208	Final chemical products (except medicaments)		
	2081 -011	Oil and fat products						
	2081 -012	Soap and synthetic detergents						
	2081 -013	Surface-active agents (except soap or synthetic detergents)						
2082 -01	2082 -011	Cosmetics, toilet preparations and dentifrices	2082	Cosmetics, toilet preparations and dentifrices				

1 Basic Sector Classification (509 Rows x 391 Columns)			2 Aggregated Sector Classification					
			187 Sector Classification		107 Sector Classification		37 Sector Classification	
Classification Code		Sector Name	Code	Sector Name	Code	Sector Name	Code	Sector Name
Column Code	Row Code							
2083 -01	2083 -011	Paint and varnishes	2083	Paint and varnishes, printing ink				
2083 -02	2083 -021	Printing ink						
2084 -01	2084 -011	Agricultural chemicals	2084	Agricultural chemicals				
2089 -01	2089 -011	Gelatin and adhesives	2089	Miscellaneous final chemical products				
2089 -02	2089 -021	Photographic sensitive materials						
2089 -09		Miscellaneous final chemical products						
	2089 -091	Catalyzer						
	2089 -099	Final chemical products, n.e.c.						
2111 -01		Petroleum refinery products (including greases)	2111	Petroleum refinery products	211	Petroleum refinery products	21	Petroleum and coal products
	2111 -011	Gasoline						
	2111 -012	Jet fuel oils						
	2111 -013	Kerosene						
	2111 -014	Light oils						
	2111 -015	Heavy oil A						
	2111 -016	Heavy oil B and C						
	2111 -017	Naphtha						
	2111 -018	LPG (liquefied petroleum gas)						
	2111 -019	Miscellaneous petroleum refinery products						
2121 -01		Coal products	2121	Coal products	212	Coal products		
	2121 -011	Coke						
	2121 -019	Miscellaneous coal products						
2121 -02	2121 -021	Paving materials						
2211 -01		Plastic products	2211	Plastic products	221	Plastic products	22	Plastic products and rubber products
	2211 -011	Plastic films and sheets						
	2211 -012	Plastic plates, pipes and bars						
	2211 -013	Foamed plastic products						
	2211 -014	Industrial plastic products						
	2211 -015	Reinforced plastic products						
	2211 -016	Plastic containers						
	2211 -017	Plastic table ware, kitchen ware and miscellaneous household articles						
	2211 -019	Miscellaneous plastic products						
2221 -01	2221 -011	Tires and inner tubes	2221	Tires and inner tubes	222	Rubber products		
2229 -09		Miscellaneous rubber products	2229	Miscellaneous rubber products				
	2229 -091	Rubber and plastic footwear						
	2229 -099	Rubber products, n.e.c.						
2311 -01	2311 -011	Leather footwear	2311	Leather footwear	231	Tanned leather, leather products and fur skins	39	Miscellaneous manufacturing products
2312 -01		Leather tanning, leather products and fur skins (except leather footwear)	2312	Tanned leather, leather products and fur skins (except leather footwear)				
	2312 -011	Leather and fur skins						
	2312 -012	Baggage, handbags, small leather cases and miscellaneous leather products						
2511 -01		Sheet glass and safety glass	2511	Glass and glass products	251	Glass and glass products	25	Ceramic, stone and clay products
	2511 -011	Sheet glass						
	2511 -012	Safety glass and multilayered glass						
2511 -02	2511 -021	Glass fiber and glass fiber products, n.e.c.						
2511 -09		Miscellaneous glass products						
	2511 -091	Glass processing materials						
	2511 -099	Glass products, n.e.c.						
2521 -01	2521 -011	Cement	2521	Cement and cement products	252	Cement and cement products		
2521 -02	2521 -021	Ready mixed concrete						
2521 -03	2521 -031	Cement products						
2531 -01		Pottery, china and earthenware	2531	Pottery, china and earthenware	253	Pottery, china and earthenware		
	2531 -011	Pottery, china and earthenware for construction						
	2531 -012	Pottery, china and earthenware for industry						
	2531 -013	Pottery, china and earthenware for home use						
2591 -01	2591 -011	Clay refractories	2591	Structural clay products	259	Miscellaneous ceramic, stone and clay products		
2591 -09	2591 -099	Miscellaneous structural clay products						
2599 -01	2599 -011	Carbon and graphite products	2599	Miscellaneous ceramic, stone and clay products				
2599 -02	2599 -021	Abrasive and its products						
2599 -09	2599 -099	Miscellaneous ceramic, stone and clay products						
2611 -01	2611 -011	Pig iron	2611	Pig iron and crude steel	261	Pig iron and crude steel	26	Iron and steel
2611 -02	2611 -021	Ferro-alloys						
2611 -03	2611 -031	Crude steel (converters)						
2611 -04	2611 -041	Crude steel (electric furnaces)						
	2612 -011P	Scrap iron	2612	Scrap iron				
2621 -01		Hot rolled steel	2621	Hot rolled steel	262	Steel products		
	2621 -011	Section steel (ordinary steel)						
	2621 -012	Steep plate (ordinary steel)						
	2621 -013	Steel strip (ordinary steel)						
	2621 -014	Steel bar (ordinary steel)						
	2621 -015	Miscellaneous hot rolled steel (ordinary steel)						
	2621 -016	Hot rolled steel (special steel)						
2622 -01		Steel pipes and tubes	2622	Steel pipes and tubes				
	2622 -011	Steel pipes and tubes (ordinary steel)						
	2622 -012	Steel pipes and tubes (special steel)						

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Classification Code		Sector Name	Code	Sector Name	Code	Sector Name	Code	Sector Name
Column Code	Row Code							
2623 -01		Cold-finished steel	2623	Cold-finished steel, coated steel				
	2623 -011	Cold-finished steel (ordinary steel)						
	2623 -012	Cold-finished steel (special steel)						
2623 -02	2623 -021	Coated steel						
2631 -01		Cast and forged steel	2631	Cast and forged steel products (iron)	263	Cast and forged steel products (iron)		
	2631 -011	Forged steel						
	2631 -012	Cast steel						
2631 -02	2631 -021	Cast iron pipes and tubes						
2631 -03		Cast and forged materials (iron)						
	2631 -031	Cast materials (iron)						
	2631 -032	Forged materials (iron)						
2699 -01	2699 -011	Iron and steel shearing and slitting	2699	Miscellaneous iron or steel products	269	Miscellaneous iron or steel products		
2699 -09	2699 -099	Miscellaneous iron or steel products						
2711 -01	2711 -011	Copper	2711	Non-ferrous metals	271	Non-ferrous metals	27	Non-ferrous metals
2711 -02	2711 -021	Lead and zinc (including regenerated lead)						
2711 -03	2711 -031	Aluminum (including regenerated aluminum)						
2711 -09	2711 -099	Miscellaneous non-ferrous metals						
	2712 -011P	Non-ferrous metal scrap	2712	Non-ferrous metal scrap				
2721 -01	2721 -011	Electric wires and cables	2721	Electric wires and cables	272	Non-ferrous metal products		
2721 -02	2721 -021	Optical fiber cables						
2729 -01	2729 -011	Rolled and drawn copper and copper alloys	2729	Miscellaneous non-ferrous metal products				
2729 -02	2729 -021	Rolled and drawn aluminum						
2729 -03	2729 -031	Non-ferrous metal castings and forgings						
2729 -04	2729 -041	Nuclear fuels						
2729 -09	2729 -099	Miscellaneous non-ferrous metal products						
2811 -01	2811 -011	Fabricated construction-use metal products	2811	Fabricated construction-use metal products	281	Fabricated constructional and architectural metal products	28	Metal products
2812 -01	2812 -011	Fabricated architectural metal products	2812	Fabricated architectural metal products				
2891 -01	2891 -011	Gas and oil appliances, heating and cooking apparatus	2891	Gas and oil appliances, heating and cooking apparatus	289	Miscellaneous metal products		
2899 -01	2899 -011	Bolts, nuts, rivets and springs	2899	Miscellaneous metal products				
2899 -02	2899 -021	Metal containers, fabricated plate and sheet metal						
2899 -03		Plumbing accessories, powder metallurgy products and tools						
	2899 -031	Plumbing accessories						
	2899 -032	Powder metallurgy products						
	2899 -033	Cutlery and tools						
2899 -09		Miscellaneous metal products						
	2899 -091	Stamped and pressed metal products						
	2899 -092	Fabricated wire products						
	2899 -099	Metal products, n.e.c.						
2911 -01	2911 -011	Boilers	2911	Boilers and Engines	291	General-purpose machinery	29	General-purpose machinery
2911 -02	2911 -021	Turbines						
2911 -03	2911 -031	Engines						
2912 -01	2912 -011	Pumps and compressors	2912	Pumps and compressors				
2913 -01	2913 -011	Conveyors	2913	Conveyors				
2914 -01	2914 -011	Refrigerators and air conditioning apparatus	2914	Refrigerators and air conditioning apparatus				
2919 -01	2919 -011	Bearings	2919	Miscellaneous general-purpose machinery				
2919 -09		Miscellaneous general-purpose machinery						
	2919 -091	Mechanical power transmission equipment						
	2919 -099	General-purpose machinery, n.e.c.						
3011 -01	3011 -011	Machinery for agricultural use	3011	Machinery for agricultural use	301	Production machinery	30	Production machinery
3012 -01	3012 -011	Machinery and equipment for construction and mining	3012	Machinery and equipment for construction and mining				
3013 -01	3013 -011	Textile machinery	3013	Textile machinery				
3014 -01		Daily lives industry machinery	3014	Daily lives industry machinary				
	3014 -011	Food processing machinery and equipment						
	3014 -012	Wood working machinery						
	3014 -013	Pulp equipment and paper machinery						
	3014 -014	Printing, bookbinding and paper-converting machinery						
	3014 -015	Packing machinery						
3015 -01	3015 -011	Chemical machinery	3015	Basic material industry machinery				
3015 -02		Casting equipment and plastic processing machinery						
	3015 -021	Casting equipment						
	3015 -022	Plastic processing machinery						
3016 -01	3016 -011	Metal machine tools	3016	Metal processing machinery				
3016 -02	3016 -021	Metal processing machinery						
3016 -03	3016 -031	Machinists' precision tools						
3017 -01	3017 -011	Semiconductor making equipment	3017	Semiconductor making equipment				

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Classification Code		Sector Name	Code	Sector Name	Code	Sector Name	Code	Sector Name
Column Code	Row Code							
3019 -01	3019 -011	Metal molds	3019	Miscellaneous production machinery				
3019 -02	3019 -021	Vacuum equipment and vacuum component						
3019 -03	3019 -031	Robots						
3019 -09	3019 -099	Miscellaneous production machinery						
3111 -01	3111 -011	Copy machine	3111	Office machines	311	Business oriented machinery	31	Business oriented machinery
3111 -09	3111 -099	Miscellaneous office machines						
3112 -01		Service industry and amusement machines	3112	Service industry and amusement machines				
	3112 -011	Vending machines						
	3112 -012	Amusement machinery						
	3112 -019	Miscellaneous machinery for service industry						
3113 -01	3113 -011	Measuring instruments	3113	Measuring instruments				
3114 -01	3114 -011	Medical instruments	3114	Medical instruments				
3115 -01	3115 -011	Optical instruments and lenses	3115	Optical instruments and lenses				
3116 -01	3116 -011	Ordnance	3116	Ordnance				
3211 -01	3211 -011	Semiconductor devices	3211	Electronic devices	321	Electronic devices	32	Electronic components
3211 -02	3211 -021	Integrated circuits						
3211 -03	3211 -031	Liquid crystal panel						
3211 -04	3211 -041	Flat-panel and electron tubes						
3299 -01	3299 -011	Storage media	3299	Miscellaneous electronic components	329	Miscellaneous electronic components		
3299 -02	3299 -021	Electric circuit						
3299 -09	3299 -099	Miscellaneous electronic components						
3311 -01		Rotating electrical equipment	3311	Electrical devices and parts	331	Electrical devices and parts	33	Electrical machinery
	3311 -011	Generators						
	3311 -012	Electric motors						
3311 -02	3311 -021	Transformers and reactors						
3311 -03	3311 -031	Relay switches and switchboards						
3311 -04	3311 -041	Wiring devices and supplies						
3311 -05	3311 -051	Electrical equipment for internal combustion engines						
3311 -09	3311 -099	Miscellaneous electrical devices and parts						
3321 -01	3321 -011	Household air-conditioners	3321	Household electric appliances	332	Household electric appliances		
3321 -02	3321 -021	Household electric appliances (except air-conditioners)						
3331 -01	3331 -011	Applied electronic equipment	3331	Applied electronic equipment	333	Applied electronic equipment and electric measuring instruments		
3332 -01	3332 -011	Electric measuring instruments	3332	Electric measuring instruments				
3399 -01	3399 -011	Electric bulbs	3399	Miscellaneous electrical machinery	339	Miscellaneous electrical machinery		
3399 -02	3399 -021	Electric lighting fixtures and apparatus						
3399 -03	3399 -031	Batteries						
3399 -09	3399 -099	Miscellaneous electrical devices and parts						
3411 -01	3411 -011	Wired communication equipment	3411	Communication equipment	341	Communication, image and audio equipment	34	Information and communication electronics equipment
3411 -02	3411 -021	Mobile phone						
3411 -03	3411 -031	Radio communication equipment (except mobile phone)						
3411 -04	3411 -041	Radio and television sets						
3411 -09	3411 -099	Miscellaneous communication equipment						
3412 -01	3412 -011	Video equipment and digital camera	3412	Image and audio equipment				
3412 -02	3412 -021	Electric audio equipment						
3421 -01	3421 -011	Personal Computers	3421	Electronic computing equipment and accessory equipment of electronic computing equipment	342	Electronic computing equipment and accessory equipment of electronic computing equipment		
3421 -02	3421 -021	Electronic computing equipment (except personal computers)						
3421 -03	3421 -031	Electronic computing equipment (accessory equipment)						
3511 -01	3511 -011	Passenger motor cars	3511	Passenger motor cars	351	Passenger motor cars	35	Transportation equipment
3521 -01	3521 -011	Trucks, buses and miscellaneous cars	3521	Trucks, buses and miscellaneous cars	352	Miscellaneous cars		
3522 -01	3522 -011	Two-wheel motor vehicles	3522	Two-wheel motor vehicles				
3531 -01	3531 -011	Internal combustion engines for motor vehicles	3531	Motor vehicle parts and accessories	353	Motor vehicle parts and accessories		
3531 -02	3531 -021	Motor vehicle parts and accessories						
3541 -01	3541 -011	Steel ships	3541	Ships and repair of ships	354	Ships and repair of ships		
3541 -02	3541 -021	Miscellaneous Ships (except steel ships)						
3541 -03	3541 -031	Internal combustion engines for vessels						
3541 -10	3541 -101	Repair of ships						
3591 -01	3591 -011	Rolling stock	3591	Rolling stock and repair of rolling stock	359	Miscellaneous transportation equipment and repair of transportation equipment		
3591 -10	3591 -101	Repair of rolling stock						
3592 -01	3592 -011	Aircrafts	3592	Aircrafts and repair of air crafts				
3592 -10	3592 -101	Repair of aircrafts						
3599 -01	3599 -011	Bicycles	3599	Miscellaneous transport equipment				
3599 -09		Miscellaneous transport equipment						
	3599 -091	Transport equipment for industrial use						
	3599 -099	Transpot equipment, n.e.c.						

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Classification Code		Sector Name	Code	Sector Name	Code	Sector Name	Code	Sector Name
Column Code	Row Code							
3911 -01	3911 -011	Toys and games	3911	Toys and games, sporting and athletic goods	391	Miscellaneous manufacturing products	39	Miscellaneous manufacturing products
3911 -02	3911 -021	Sporting and athletic goods						
3919 -01	3919 -011	Jewelry and adornments	3919	Miscellaneous manufacturing products				
3919 -02	3919 -021	Watches and clocks						
3919 -03	3919 -031	Musical instruments						
3919 -04	3919 -041	Stationery						
3919 -05	3919 -051	"Tatami" (straw matting) and straw products						
3919 -06	3919 -061	Audio and video records, other information recording media						
3919 -09	3919 -099	Miscellaneous manufacturing products						
3921 -01	3921 -011	Reuse and recycling	3921	Reuse and recycling	392	Reuse and recycling		
4111 -01	4111 -011	Residential construction (wooden)	4111	Residential construction	411	Building construction	41	Construction
4111 -02	4111 -021	Residential construction (non-wooden)						
4112 -01	4112 -011	Non-residential construction (wooden)	4112	Non-residential construction				
4112 -02	4112 -021	Non-residential construction (non-wooden)						
4121 -01	4121 -011	Repair of construction	4121	Repair of construction	412	Repair of construction		
4131 -01	4131 -011	Public construction of roads	4131	Public construction	413	Public construction		
4131 -02	4131 -021	Public construction of rivers, drainages and miscellaneous public construction						
4131 -03	4131 -031	Agricultural public construction						
4191 -01	4191 -011	Railway construction	4191	Miscellaneous civil engineering and construction	419	Miscellaneous civil engineering and construction		
4191 -02	4191 -021	Electric power facilities construction						
4191 -03	4191 -031	Telecommunication facilities construction						
4191 -09	4191 -099	Miscellaneous civil engineering and construction						
	4611 -001	Electricity	4611	Electricity	461	Electricity	46	Electricity, gas and heat supply
4611 -01		Electricity (thermal power)						
4611 -02		Electricity (except thermal power)						
4611 -03	4611 -031	Private power generation						
4621 -01	4621 -011	Gas supply	4621	Gas supply	462	Gas and heat supply		
4622 -01	4622 -011	Steam and hot water supply	4622	Steam and hot water supply				
4711 -01	4711 -011	Water supply	4711	Water supply	471	Water supply	47	Water supply
4711 -02	4711 -021	Industrial water supply						
4711 -03	4711 -031	Sewage disposal **						
4811 -01	4811 -011	Waste management services (public corporation) **	4811	Waste management service	481	Waste management service	48	Waste management service
4811 -02	4811 -021	Waste management services						
5111 -01	5111 -011	Wholesale trade	5111	Wholesale trade	511	Commerce	51	Commerce
5112 -01	5112 -011	Retail trade	5112	Retail trade				
5311 -01		Financial service	5311	Financial service	531	Finance and insurance	53	Finance and insurance
	5311 -011	Financial service (FISIM), public						
	5311 -012	Financial service (FISIM), private						
	5311 -013	Financial service (commission), public						
	5311 -014	Financial service (commission), private						
5312 -01	5312 -011	Life insurance	5312	Insurance				
5312 -02	5312 -021	Non-life insurance						
5511 -01	5511 -011	Real estate agencies and managers	5511	Real estate agencies and rental services	551	Real estate agencies and rental services	55	Real estate
5511 -02	5511 -021	Real estate rental service						
5521 -01	5521 -011	House rent	5521	House rent	552	House rent		
5531 -01	5531 -011	House rent (imputed house rent)	5531	House rent (imputed house rent)	553	House rent (imputed house rent)		
5711 -01	5711 -011	Railway transport (passengers)	5711	Railway transport (passengers)	571	Railway transport	57	Transport and postal services
5712 -01	5712 -011	Railway transport (freight)	5712	Railway transport (freight)				
5721 -01	5721 -011	Bus transport service	5721	Road transport service	572	Road transport (except self-transport)		
5721 -02	5721 -021	Hired car and taxi transport						
5722 -01	5722 -011	Road freight transport (except self-transport)	5722	Road freight transport (except self-transport)				
5731 -01P	5731 -011P	Self-transport (passengers)	5731	Self-transport (passengers)	573	Self-transport		
5732 -01P	5732 -011P	Self-transport (freight)	5732	Self-transport (freight)				
5741 -01	5741 -011	International shipping	5741	International shipping	574	Water transport		
5742 -01		Coastal and inland water transport	5742	Coastal and inland water transport				
	5742 -011	Coastal and inland water transport (passengers)						
	5742 -012	Coastal and inland water transport (freight)						
5743 -01	5743 -011	Harbor transport service	5743	Harbor transport service				
5751 -01		Air transport	5751	Air transport	575	Air transport		
	5751 -011	International air transport						
	5751 -012	Domestic air transport (passengers)						
	5751 -013	Domestic air transport (freight)						
	5751 -014	Aircraft service except air transport						
5761 -01	5761 -011	Consigned freight forwarding	5761	Freight forwarding	576	Freight forwarding		
5771 -01	5771 -011	Storage facility service	5771	Storage facility service	577	Storage facility service		

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Classification Code		Sector Name	Code	Sector Name	Code	Sector Name	Code	Sector Name
Column Code	Row Code							
5781 -01	5781 -011	Packing service	5781	Packing service	578	Services relating to transport		
5789 -01	5789 -011	Facility service for road transport	5789	Miscellaneous services relating to transport				
5789 -02	5789 -021	Port and water traffic control (public corporation) **						
5789 -03	5789 -031	Port and water traffic control						
5789 -04	5789 -041	Services relating to water transport						
5789 -05	5789 -051	Airport and air traffic control (public corporation) **						
5789 -06	5789 -061	Airport and air traffic control						
5789 -07	5789 -071	Services relating to air transport						
5789 -09	5789 -099	Travel agency and miscellaneous services relating to transport						
5791 -01	5791 -011	Postal services and mail delivery	5791	Postal services and mail delivery	579	Postal services and mail delivery		
5911 -01	5911 -011	Fixed telecommunications	5911	Communications	591	Communications	59	Information and communications
5911 -02	5911 -021	Mobile telecommunications						
5911 -03	5911 -031	Services relating to telecommunications						
5921 -01	5921 -011	Public broadcasting	5921	Broadcasting	592	Broadcasting		
5921 -02	5921 -021	Private broadcasting						
5921 -03	5921 -031	Cable broadcasting						
5931 -01		Information services	5931	Information services	593	Information services		
	5931 -011	Computer programming and miscellaneous software services						
	5931 -012	Data processing, research and information services						
5941 -01	5941 -011	Internet based services	5941	Internet based services	594	Internet based services		
5951 -01	5951 -011	Video picture, sound information, character information production (except newspaper or publication)	5951	Image information, sound information and character information production	595	Image information, sound information and character information production		
5951 -02	5951 -021	Newspaper						
5951 -03	5951 -031	Publication						
6111 -01	6111 -011	Public administration (central government) **	6111	Public administration (central government)	611	Public administration	61	Public administration
6112 -01	6112 -011	Public administration (local government) **	6112	Public administration (local government)				
6311 -01	6311 -011	School education (public institution) **	6311	School education	631	Education	63	Education and research
6311 -02	6311 -021	School education (NPI) *						
6311 -03	6311 -031	School lunch (public institution) **						
6311 -04	6311 -041	School lunch (NPI) *						
6312 -01	6312 -011	Social education (public institution) **	6312	Social education and miscellaneous educational and training				
6312 -02	6312 -021	Social education (NPI) *						
6312 -03	6312 -031	Miscellaneous educational and training institutions (public institution) **						
6312 -04	6312 -041	Miscellaneous educational and training institutions						
6321 -01	6321 -011	Research institutes for natural science (public institution) **	6321	Research institutes	632	Research		
6321 -02	6321 -021	Research institutes for cultural and social science (public institution) **						
6321 -03	6321 -031	Research institutes for natural sciences (NPI) *						
6321 -04	6321 -041	Research institutes for cultural and social science (NPI) *						
6321 -05	6321 -051	Research institutes for natural sciences						
6321 -06	6321 -061	Research institutes for cultural and social science						
6322 -01	6322 -011	Research and development (intra-enterprise)	6322	Research and development				
6411 -01	6411 -011	Medical service (hospitalization)	6411	Medical service	641	Medical service	64	Medical, health care and welfare
6411 -02	6411 -021	Medical service (except hospitalization)						
6411 -03	6411 -031	Medical service (dentistry)						
6411 -04	6411 -041	Medical service (pharmacy dispensing)						
6411 -05	6411 -051	Medical service (miscellaneous medical service)						
6421 -01	6421 -011	Health and hygiene (public institution) **	6421	Health and hygiene	642	Health and hygiene		
6421 -02	6421 -021	Health and hygiene						
6431 -01	6431 -011	Social insurance **	6431	Social insurance and social welfare	643	Social insurance and social welfare		
6431 -02	6431 -021	Social welfare (public institution) **						
6431 -03	6431 -031	Social welfare (NPI) *						
6431 -04	6431 -041	Social welfare						
6431 -05	6431 -051	Nursery						
6441 -01	6441 -011	Nursing care (facility services)	6441	Nursing care	644	Nursing care		
6441 -02	6441 -021	Nursing care (except facility services)						
6599 -01	6599 -011	Membership-based business associations	6599	Membership-based associations, n.e.c.	659	Membership-based associations, n.e.c.	65	Membership-based associations, n.e.c.
6599 -02	6599 -021	Private non-profit institutions serving households, n.e.c. *						

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Classification Code		Sector Name	Code	Sector Name	Code	Sector Name	Code	Sector Name
Column Code	Row Code							
6611 -01		Goods rental and leasing (except car rental)	6611	Goods rental and leasing (except car rental)	661	Goods rental and leasing services	66	Business services
	6611 -011	Industrial equipment and machinery rental and leasing (except construction machinery)						
	6611 -012	Construction machine rental and leasing						
	6611 -013	Electronic computing equipment rental and leasing						
	6611 -014	Office machines rental and leasing (except electronic computing equipment)						
	6611 -015	Sports goods, recreation goods and miscellaneous goods rental and leasing						
6612 -01	6612 -011	Car rental and leasing	6612	Car rental and leasing				
6621 -01		Advertising services	6621	Advertising services	662	Advertising services		
	6621 -011	Television and radio advertising services						
	6621 -012	Newspaper, magazine and miscellaneous advertising services						
6631 -10	6631 -101	Motor vehicle maintenance services	6631	Motor vehicle maintenance services	663	Motor vehicle maintenance and machine repair services		
6632 -10	6632 -101	Machine repair services	6632	Machine repair services				
6699 -01	6699 -011	Judicial, financial and accounting services	6699	Miscellaneous business services	669	Miscellaneous business services		
6699 -02	6699 -021	Civil engineering and construction services						
6699 -03	6699 -031	Worker dispatching services						
6699 -04	6699 -041	Building maintenance services						
6699 -05	6699 -051	Guard services						
6699 -09	6699 -099	Miscellaneous business services						
6711 -01	6711 -011	Hotels	6711	Hotels	671	Hotels	67	Personal services
6721 -01	6721 -011	Eating and drinking places	6721	Eating and drinking services	672	Eating and drinking services		
6721 -02	6721 -021	Food take out and delivery services						
6731 -01	6731 -011	Cleaning	6731	Cleaning, barber shops, beauty shops and public baths	673	Cleaning, barber shops, beauty shops and public baths		
6731 -02	6731 -021	Barber shops						
6731 -03	6731 -031	Beauty shops						
6731 -04	6731 -041	Public baths						
6731 -09	6731 -099	Miscellaneous cleaning, barber shops, beauty shops and public baths						
6741 -01	6741 -011	Movie theaters	6741	Amusement and recreational services	674	Amusement and recreational services		
6741 -02	6741 -021	Performances (except movie theaters), theatrical comranies						
6741 -03	6741 -031	Stadiums and companies of bicycle, horse, motorcar and motorboat races						
6741 -04	6741 -041	Sport facility service, public gardens and amusement parks						
6741 -05	6741 -051	Amusement and recreation facilities						
6741 -09	6741 -099	Miscellaneous amusement and recreation services						
6799 -01	6799 -011	Photographic studios	6799	Miscellaneous personal services	679	Miscellaneous personal services		
6799 -02	6799 -021	Ceremonial occasions						
6799 -03	6799 -031	Supplementary tutorial schools, instruction services for arts, culture and technical skills						
6799 -04	6799 -041	Miscellaneous repairs, n.e.c.						
6799 -09	6799 -099	Miscellaneous personal services						
6811 -00P	6811 -000P	Office supplies	6811	Office supplies	681	Office supplies	68	Office supplies
6911 -00	6911 -000	Activities not elsewhere classified	6911	Activities not elsewhere classified	691	Activities not elsewhere classified	69	Activities not elsewhere classified
7000 -00	7000 -000	Total of intermediate sectors	7000	Total of intermediate sectors	700	Total of intermediate sectors	70	Total of intermediate sectors

(Notes)

1. Meanings of the symbols are as follows;
   **: general government sector
   *: non-profit institutions, or NPIs sector
2. "P" which placed next to the last digit of the Basic Sector Classification Code means "Dummy sector (provisional sector)".

Final Demand Sectors

1 Basic Sector Classification			2 Aggregated Sector Classification					
			187 Sector Classification		107 Sector Classification		37 Sector Classification	
Classification Code		Sector Name	Code	Sector Name	Code	Sector Name	Code	Sector Name
Column Code	Row Code							
7111 -00		Consumption expenditure outside households (column)	7111	Consumption expenditure outside households (column)	711	Consumption expenditure outside households (column)	71	Consumption expenditure outside households (column)
7211 -00		Consumption expenditure of households	7211	Consumption expenditure of households	721	Consumption expenditure (private)	72	Consumption expenditure (private)
7212 -00		Consumption expenditure of private non-profit institutions serving households	7212	Consumption expenditure of private non-profit institutions serving households				
7311 -01		Collective consumption expenditure of central government	7311	Consumption expenditure of general government	731	Consumption expenditure of general government	73	Consumption expenditure of general government
7311 -02		Collective consumption expenditure of local government						
7311 -03		Individual consumption expenditure of central government						
7311 -04		Individual consumption expenditure of local government						
7321 -01		Collective consumption expenditure of central government (CFC of social fixed capital)	7321	Consumption expenditure of general government (CFC of social fixed capital)	732	Consumption expenditure of general government (CFC of social fixed capital)		
7321 -02		Collective consumption expenditure of local government (CFC of social fixed capital)						
7321 -03		Individual consumption expenditure of central government (CFC of social fixed capital)						
7321 -04		Individual consumption expenditure of local government (CFC of social fixed capital)						
7411 -00		Gross domestic fixed capital formation (public sector)	7411	Gross domestic fixed capital formation (public sector)	741	Gross domestic fixed capital formation (public sector)	74	Gross domestic fixed capital formation (public sector)
7511 -00		Gross domestic fixed capital formation (private sector)	7511	Gross domestic fixed capital formation (private sector)	751	Gross domestic fixed capital formation (private sector)	75	Gross domestic fixed capital formation (private sector)
7611 -01		Increase in producer's stocks of finished goods	7611	Increase in stocks	761	Increase in stocks	76	Increase in stocks
7611 -02		Increase in semi-finished goods and work-in-progress						
7611 -03		Increase in dealer's stocks of goods						
7611 -04		Increase in stocks of raw materials and supplies						
7800 -00		Total domestic final demand	7800	Total domestic final demand	780	Total domestic final demand	78	Total domestic final demand
7900 -00		Total domestic demand	7900	Total domestic demand	790	Total domestic demand	79	Total domestic demand
8011 -01		Exports (ordinary trade)	8011	Exports	801	Exports	80	Exports
8011 -02		Exports (special trade)						
8012 -00		Exports (direct purchase)	8012	Exports (direct purchase)				
8100 -00		Exports total	8100	Exports total	810	Exports total	81	Exports total
8200 -00		Total Final demand	8200	Total Final demand	820	Total Final demand	82	Total Final demand
8300 -00		Total demand	8300	Total demand	830	Total demand	83	Total demand
8411 -01		(less) Imports (ordinary trade)	8411	(less) Imports	841	(less) Imports	84	(less) Imports
8411 -02		(less) Imports (special trade)						
8412 -00		(less) Imports (direct purchase)	8412	(less) Imports (direct purchase)				
8511 -00		(less) Custom duties	8511	(less) Custom duties	851	(less) Custom duties	85	(less) Custom duties
8611 -00		(less) Commodity taxes on imported goods	8611	(less) Commodity taxes on imported goods	861	(less) Commodity taxes on imported goods	86	(less) Commodity taxes on imported goods
8700 -00		(less) Total imports	8700	(less) Total imports	870	(less) Total imports	87	(less) Total imports
8800 -00		Total of final demand sectors	8800	Total of final demand sectors	880	Total of final demand sectors	88	Total of final demand sectors
8911 -00		Trade margins (wholesale)	8911	Trade margins (wholesale)	891	Trade margins	89	Trade margins
8912 -00		Trade margins (retail)	8912	Trade margins (retail)				
9011 -00		Transportation charges (railway)	9011	Transportation charges (railway)	901	Transportation charges	90	Transportation charges
9012 -00		Transportation charges (road)	9012	Transportation charges (road)				
9013 -01		Transportation charges (coastal and inland water)	9013	Transportation charges (coastal and inland water)				
9013 -02		Transportation charges (harbor)						
9014 -00		Transportation charges (air)	9014	Transportation charges (air)				
9015 -00		Transportation charges (forwarding)	9015	Transportation charges (forwarding)				
9016 -00		Transportation charges (storage facility)	9016	Transportation charges (storage facility)				
9700 -00		Domestic production (gross outputs)	9700	Domestic production (gross outputs)	970	Domestic production (gross outputs)	97	Domestic production (gross outputs)

Gross Value Added Sectors

1 Basic Sector Classification			2 Aggregated Sector Classification					
			187 Sector Classification		107 Sector Classification		37 Sector Classification	
Classification Code		Sector Name	Code	Sector Name	Code	Sector Name	Code	Sector Name
Column Code	Row Code							
	7111 -001	Lodging expenses and daily allowances	7111	Consumption expenditure outside households (row)	711	Consumption expenditure outside households (row)	71	Consumption expenditure outside households (row)
	7111 -002	Social expenses						
	7111 -003	Welfare expenses						
	9111 -000	Wages and salaries	9111	Wages and salaries	911	Compensation of employees	91	Compensation of employees
	9112 -000	Contribution of employers to social insurance	9112	Contribution of employers to social insurance				
	9113 -000	Miscellaneous payments and allowances	9113	Miscellaneous payments and allowances				
	9211 -000	Operating surplus	9211	Operating surplus	921	Operating surplus	92	Operating surplus
	9311 -000	Consumption of fixed capital	9311	Consumption of fixed capital	931	Consumption of fixed capital	93	Consumption of fixed capital
	9321 -000	Consumption of fixed capital (social fixed capital)	9321	Consumption of fixed capital (social fixed capital)	932	Consumption of fixed capital (social fixed capital)		
	9411 -000	Indirect taxes (except custom duties and commodity taxes on imported goods)	9411	Indirect taxes (except custom duties and commodity taxes on imported goods)	941	Indirect taxes (except custom duties and commodity taxes on imported goods)	94	Indirect taxes (except custom duties and commodity taxes on imported goods)
	9511 -000	(less) Current subsidies	9511	(less) Current subsidies	951	(less) Current subsidies	95	(less) Current subsidies
	9600 -000	Total of gross value added sectors	9600	Total of gross value added sectors	960	Total of gross value added sectors	96	Total of gross value added sectors
	9700 -000	Domestic production (gross inputs)	9700	Domestic production (gross inputs)	970	Domestic production (gross inputs)	97	Domestic production (gross inputs)

2. Special Classification

Code	Sector Name
2	Scrap input
3	Scrap output
4	By-product input
5	By-product output
6	Trade margins
7	Domestic freight

3. 13 Sector Classification

Code	Sector Name	37 Sector Classification Code
01	Agriculture, forestry and fishery	01
02	Mining	06
03	Manufacturing	11-39,68
04	Construction	41
05	Electricity, gas and water supply	46,47
06	Commerce	51
07	Finance and insurance	53
08	Real estate	55
09	Transport and postal services	57
10	Information and communications	59
11	Public administration	61
12	Services	48,63-67
13	Activities not elsewhere classified	69
70	Total of intermediate sectors	70

〔Reference 4〕

Coressponding Table of Minor Aggregated Classification in 2015 Input-Output Tables and International Standard Industrial classification

Minor Aggregated Classification in 2015 Input-Output Tables		ISIC(Rev.4)		
Code	Sector name	Code	Name	
0111	Grains	0111	Growing of cereals (except rice), leguminous crops and oil seeds	(1/3)
		0112	Growing of rice	
0112	Potatoes, beans	0111	Growing of cereals (except rice), leguminous crops and oil seeds	(2/3)
		0113	Growing of vegetables and melons, roots and tubers	(1/4)
0113	Vegetables	0113	Growing of vegetables and melons, roots and tubers	(2/4)
0114	Fruits	0121	Growing of grapes	
		0122	Growing of tropical and subtropical fruits	
		0123	Growing of citrus fruits	
		0124	Growing of pome fruits and stone fruits	
		0125	Growing of other tree and bush fruits and nuts	
0115	Miscellaneous edible crops	0111	Growing of cereals (except rice), leguminous crops and oil seeds	(3/3)
		0113	Growing of vegetables and melons, roots and tubers	(3/4)
		0114	Growing of sugar cane	
		0126	Growing of oleaginous fruits	
		0127	Growing of beverage crops	
		0128	Growing of spices, aromatic, drug and pharmaceutical crops	(1/2)
0116	Inedible crops	0115	Growing of tobacco	
		0116	Growing of fibre crops	
		0119	Growing of other non-perennial crops	
		0128	Growing of spices, aromatic, drug and pharmaceutical crops	(2/2)
		0129	Growing of other perennial crops	
		0130	Plant propagation	
		0164	Seed processing for propagation	
0121	Livestock	0141	Raising of cattle and buffaloes	
		0142	Raising of horses and other equines	
		0143	Raising of camels and camelids	
		0144	Raising of sheep and goats	
		0145	Raising of swine/pigs	
		0146	Raising of poultry	
		0149	Raising of other animals	
0131	Agricultural services	0161	Support activities for crop production	
		0162	Support activities for animal production	
		0163	Post-harvest crop activities	
		7500	Veterinary activities	
0151	Silviculture	0210	Silviculture and other forestry activities	
		0240	Support services to forestry	(1/3)
0152	Logs	0220	Logging	(1/2)
		0240	Support services to forestry	(2/3)
0153	Special forest products	0113	Growing of vegetables and melons, roots and tubers	(4/4)
		0170	Hunting, trapping and related service activities	
		0220	Logging	(2/2)
		0230	Gathering of non-wood forest products	
		0240	Support services to forestry	(3/3)
0171	Marine fishery	0311	Marine fishing	
		0321	Marine aquaculture	
0172	Inland water fishery	0312	Freshwater fishing	
		0322	Freshwater aquaculture	
0611	Coal mining, crude petroleum and natural gas	0510	Mining of hard coal	
		0520	Mining of lignite	
		0610	Extraction of crude petroleum	
		0620	Extraction of natural gas	
		0892	Extraction of peat	
		0910	Support activities for petroleum and natural gas extraction	
0621	Gravel and quarrying	0810	Quarrying of stone, sand and clay	(1/2)
		0990	Support activities for other mining and quarrying	(1/2)
		2396	Cutting, shaping and finishing of stone	(1/3)
0629	Miscellaneous ores	0710	Mining of iron ores	
		0721	Mining of uranium and thorium ores	
		0729	Mining of other non-ferrous metal ores	
		0810	Quarrying of stone, sand and clay	(2/2)
		0891	Mining of chemical and fertilizer minerals	
		0899	Other mining and quarrying n.e.c.	
		0990	Support activities for other mining and quarrying	(2/2)
1111	Dairy products	1010	Processing and preserving of meat	(1/2)
		1050	Manufacture of dairy products	
1112	Processed seafood	1020	Processing and preserving of fish, crustaceans and molluscs	(1/2)
1113	Grain milling	1061	Manufacture of grain mill products	
1114	Noodles, bread, confectionery	1071	Manufacture of bakery products	(1/2)
		1073	Manufacture of cocoa, chocolate and sugar confectionery	
		1074	Manufacture of macaroni, noodles, couscous and similar farinaceous products	
		1079	Manufacture of other food products n.e.c.	(1/4)
1115	Preserved agricultural food stuffs	1030	Processing and preserving of fruit and vegetables	(1/3)

Minor Aggregated Classification in 2015 Input-Output Tables		ISIC(Rev.4)		
Code	Sector name	Code	Name	
1116	Sugar, oils, condiments and seasoning	1010	Processing and preserving of meat	(2/2)
		1040	Manufacture of vegetable and animal oils and fats	(1/2)
		1062	Manufacture of starches and starch products	
		1072	Manufacture of sugar	
		1079	Manufacture of other food products n.e.c.	(2/4)
1119	Miscellaneous foods	1030	Processing and preserving of fruit and vegetables	(2/3)
		1075	Manufacture of prepared meals and dishes	
		1079	Manufacture of other food products n.e.c.	(3/4)
1121	Liquors	1101	Distilling, rectifying and blending of spirits	
		1102	Manufacture of wines	
		1103	Manufacture of malt liquors and malt	
1129	Miscellaneous drinks	1030	Processing and preserving of fruit and vegetables	(3/3)
		1079	Manufacture of other food products n.e.c.	(4/4)
		1104	Manufacture of soft drinks; production of mineral waters and other bottled waters	
		3530	Steam and air conditioning supply	(1/2)
1131	Feeds and organic fertilizers, n.e.c.	1020	Processing and preserving of fish, crustaceans and molluscs	(2/2)
		1040	Manufacture of vegetable and animal oils and fats	(2/2)
		1080	Manufacture of prepared animal feeds	
		3821	Treatment and disposal of non-hazardous waste	(1/2)
1141	Tobacco	1200	Manufacture of tobacco products	
1511	Fiber yarns	1311	Preparation and spinning of textile fibres	(1/2)
1512	Fiber fabrics	1312	Weaving of textiles	(1/2)
		1399	Manufacture of other textiles n.e.c.	(1/4)
		2219	Manufacture of other rubber products	(1/3)
1513	Knitting fabrics	1391	Manufacture of knitted and crocheted fabrics	
1514	Yarn and fabric dyeing and finishing	1313	Finishing of textiles	(1/2)
		1430	Manufacture of knitted and crocheted apparel	(1/3)
1519	Miscellaneous fabricated textile products	1311	Preparation and spinning of textile fibres	(2/2)
		1394	Manufacture of cordage, rope, twine and netting	
		1399	Manufacture of other textiles n.e.c.	(2/4)
1521	Woven fabric and knitted Apparel	1410	Manufacture of wearing apparel, except fur apparel	(1/4)
		1430	Manufacture of knitted and crocheted apparel	(2/3)
1522	Miscellaneous wearing apparel and clothing accessories	1410	Manufacture of wearing apparel, except fur apparel	(2/4)
		1420	Manufacture of articles of fur	
		1430	Manufacture of knitted and crocheted apparel	(3/3)
1529	Miscellaneous ready-made textile products	1312	Weaving of textiles	(2/2)
		1392	Manufacture of made-up textile articles, except apparel	(1/2)
		1393	Manufacture of carpets and rugs	
		1399	Manufacture of other textiles n.e.c.	(3/4)
		1709	Manufacture of other articles of paper and paperboard	(1/4)
		3250	Manufacture of medical and dental instruments and supplies	(1/6)
1611	Lumber	1610	Sawmilling and planing of wood	(1/2)
		1621	Manufacture of veneer sheets and wood-based panels	(1/2)
		1622	Manufacture of builders' carpentry and joinery	(1/4)
1619	Miscellaneous wooden products	1610	Sawmilling and planing of wood	(2/2)
		1621	Manufacture of veneer sheets and wood-based panels	(2/2)
		1622	Manufacture of builders' carpentry and joinery	(2/4)
		1623	Manufacture of wooden containers	(1/2)
		1629	Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials	(1/3)
		3290	Other manufacturing n.e.c.	(1/5)
1621	Furniture and fixtures	1622	Manufacture of builders' carpentry and joinery	(3/4)
		1629	Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials	(2/3)
		2220	Manufacture of plastics products	(1/4)
		2393	Manufacture of other porcelain and ceramic products	(1/2)
		2395	Manufacture of articles of concrete, cement and plaster	(1/3)
		2396	Cutting, shaping and finishing of stone	(2/3)
		2817	Manufacture of office machinery and equipment (except computers and peripheral equipment)	(1/3)
		3100	Manufacture of furniture	(1/2)
		3212	Manufacture of imitation jewellery and related articles	(1/2)
		3220	Manufacture of musical instruments	(1/2)
1631	Pulp	1701	Manufacture of pulp, paper and paperboard	(1/3)
1632	Paper, paperboard	1701	Manufacture of pulp, paper and paperboard	(2/3)
1633	Building paper	1701	Manufacture of pulp, paper and paperboard	(3/3)
		1702	Manufacture of corrugated paper and paperboard and of containers of paper and paperboard	(1/3)
		1709	Manufacture of other articles of paper and paperboard	(2/4)
1641	Paper containers	1702	Manufacture of corrugated paper and paperboard and of containers of paper and paperboard	(2/3)
		1709	Manufacture of other articles of paper and paperboard	(3/4)
1649	Miscellaneous processed paper products	1702	Manufacture of corrugated paper and paperboard and of containers of paper and paperboard	(3/3)
		1709	Manufacture of other articles of paper and paperboard	(4/4)
		2220	Manufacture of plastics products	(2/4)

Minor Aggregated Classification in 2015 Input-Output Tables		ISIC(Rev.4)		
Code	Sector name	Code	Name	
1911	Printing, plate making and book binding	1313	Finishing of textiles	(2/2)
		1811	Printing	
		1812	Service activities related to printing	
2011	Chemical fertilizer	2012	Manufacture of fertilizers and nitrogen compounds	(1/2)
2021	Industrial soda chemicals	2011	Manufacture of basic chemicals	(1/6)
2029	Miscellaneous industrial inorganic chemicals	0893	Extraction of salt	
		2011	Manufacture of basic chemicals	(2/6)
		2012	Manufacture of fertilizers and nitrogen compounds	
2031	Petrochemical basic products	2011	Manufacture of basic chemicals	(3/6)
		2013	Manufacture of plastics and synthetic rubber in primary forms	(1/4)
2041	Aliphatic intermediates, cyclic intermediates, synthetic dyes and organic pigments	2011	Manufacture of basic chemicals	(4/6)
		2013	Manufacture of plastics and synthetic rubber in primary forms	(2/4)
2042	Synthetic rubber	2013	Manufacture of plastics and synthetic rubber in primary forms	(3/4)
2049	Miscellaneous basic organic chemical products	2011	Manufacture of basic chemicals	(5/6)
		2029	Manufacture of other chemical products n.e.c.	(1/4)
2051	Synthetic resins	2013	Manufacture of plastics and synthetic rubber in primary forms	(4/4)
2061	Synthetic fibers	2030	Manufacture of man-made fibres	
2071	Medicaments	2021	Manufacture of pesticides and other agrochemical products	(1/2)
		2100	Manufacture of pharmaceuticals, medicinal chemical and botanical products	
2081	Oil and fat products and surface-active agents	2023	Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations	(1/3)
2082	Cosmetics, toilet preparations and dentifrices	2023	Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations	(2/3)
2083	Paint and varnishes, printing ink	2022	Manufacture of paints, varnishes and similar coatings, printing ink and mastics	(1/2)
2084	Agricultural chemicals	2021	Manufacture of pesticides and other agrochemical products	(2/2)
2089	Miscellaneous final chemical products	2011	Manufacture of basic chemicals	(6/6)
		2023	Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations	(3/3)
		2029	Manufacture of other chemical products n.e.c.	(2/4)
		3290	Other manufacturing n.e.c.	(2/5)
2111	Petroleum refinery products	1910	Manufacture of coke oven products	(1/2)
		1920	Manufacture of refined petroleum products	(1/2)
2121	Coal products	1910	Manufacture of coke oven products	(2/2)
		1920	Manufacture of refined petroleum products	(2/2)
2211	Plastic products	1399	Manufacture of other textiles n.e.c.	(4/4)
		2219	Manufacture of other rubber products	(2/3)
		2220	Manufacture of plastics products	(3/4)
		2930	Manufacture of parts and accessories for motor vehicles	(1/4)
		3290	Other manufacturing n.e.c.	(3/5)
2221	Tires and inner tubes	2211	Manufacture of rubber tyres and tubes; retreading and rebuilding of rubber tyres	(1/2)
2229	Miscellaneous rubber products	1410	Manufacture of wearing apparel, except fur apparel	(3/4)
		1520	Manufacture of footwear	(1/2)
		2029	Manufacture of other chemical products n.e.c.	(3/4)
		2211	Manufacture of rubber tyres and tubes; retreading and rebuilding of rubber tyres	(2/2)
		2219	Manufacture of other rubber products	(3/3)
		2220	Manufacture of plastics products	(4/4)
		3830	Materials recovery	(1/4)
2311	Leather footwear	1520	Manufacture of footwear	(2/2)
2312	Tanned leather, leather products and fur skins (except leather footwear)	1410	Manufacture of wearing apparel, except fur apparel	(4/4)
		1511	Tanning and dressing of leather; dressing and dyeing of fur	
		1512	Manufacture of luggage, handbags and the like, saddlery and harness	
		3092	Manufacture of bicycles and invalid carriages	(1/3)
2511	Glass and glass products	2310	Manufacture of glass and glass products	
2521	Cement and cement products	2394	Manufacture of cement, lime and plaster	(1/2)
		2395	Manufacture of articles of concrete, cement and plaster	(2/3)
2531	Pottery, china and earthenware	2392	Manufacture of clay building materials	(1/2)
		2393	Manufacture of other porcelain and ceramic products	(2/2)
		2399	Manufacture of other non-metallic mineral products n.e.c.	(1/2)
2591	Structural clay products	2391	Manufacture of refractory products	
		2392	Manufacture of clay building materials	(2/2)
		2395	Manufacture of articles of concrete, cement and plaster	(3/3)
2599	Miscellaneous ceramic, stone and clay products	2394	Manufacture of cement, lime and plaster	(2/2)
		2396	Cutting, shaping and finishing of stone	(3/3)
		2399	Manufacture of other non-metallic mineral products n.e.c.	(2/2)
		2599	Manufacture of other fabricated metal products n.e.c.	(1/5)
		2790	Manufacture of other electrical equipment	(1/6)
		3830	Materials recovery	(2/4)
2611	Pig iron and crude steel	2410	Manufacture of basic iron and steel	(1/6)
2612	Scrap iron	2410	Manufacture of basic iron and steel	(2/6)
2621	Hot rolled steel	2410	Manufacture of basic iron and steel	(3/6)
		2599	Manufacture of other fabricated metal products n.e.c.	(2/5)

Minor Aggregated Classification in 2015 Input-Output Tables		ISIC(Rev.4)		
Code	Sector name	Code	Name	
2622	Steel pipes and tubes	2410	Manufacture of basic iron and steel	(4/6)
		2592	Treatment and coating of metals; machining	(1/5)
2623	Cold-finished steel, coated steel	2410	Manufacture of basic iron and steel	(5/6)
		2592	Treatment and coating of metals; machining	(2/5)
		2599	Manufacture of other fabricated metal products n.e.c.	(3/5)
2631	Cast and forged steel products (iron)	2431	Casting of iron and steel	(1/2)
		2591	Forging, pressing, stamping and roll-forming of metal; powder metallurgy	(1/3)
		2599	Manufacture of other fabricated metal products n.e.c.	(4/5)
2699	Miscellaneous iron or steel products	2410	Manufacture of basic iron and steel	(6/6)
		2592	Treatment and coating of metals; machining	(3/5)
2711	Non-ferrous metals	2420	Manufacture of basic precious and other non-ferrous metals	(1/3)
2712	Non-ferrous metal scrap	2420	Manufacture of basic precious and other non-ferrous metals	(2/3)
2721	Electric wires and cables	2731	Manufacture of fibre optic cables	
		2732	Manufacture of other electronic and electric wires and cables	
2729	Miscellaneous non-ferrous metal products	2420	Manufacture of basic precious and other non-ferrous metals	(3/3)
		2432	Casting of non-ferrous metals	
		2591	Forging, pressing, stamping and roll-forming of metal; powder metallurgy	(2/3)
2811	Metal products for construction	2511	Manufacture of structural metal products	(1/2)
2812	Fabricated architectural metal products	2511	Manufacture of structural metal products	(2/2)
2891	Gas and oil appliances and heating and cooking apparatus	2512	Manufacture of tanks, reservoirs and containers of metal	(1/2)
		2750	Manufacture of domestic appliances	(1/3)
		2815	Manufacture of ovens, furnaces and furnace burners	(1/3)
2899	Miscellaneous metal products	2431	Casting of iron and steel	(2/2)
		2512	Manufacture of tanks, reservoirs and containers of metal	(2/2)
		2591	Forging, pressing, stamping and roll-forming of metal; powder metallurgy	(3/3)
		2592	Treatment and coating of metals; machining	(4/5)
		2593	Manufacture of cutlery, hand tools and general hardware	(1/2)
		2599	Manufacture of other fabricated metal products n.e.c.	(5/5)
		2750	Manufacture of domestic appliances	(2/3)
		2818	Manufacture of power-driven hand tools	(1/2)
		2819	Manufacture of other general-purpose machinery	(1/7)
		2822	Manufacture of metal-forming machinery and machine tools	(1/3)
		2829	Manufacture of other special-purpose machinery	(1/6)
		2930	Manufacture of parts and accessories for motor vehicles	(2/4)
		3091	Manufacture of motorcycles	(1/3)
		3092	Manufacture of bicycles and invalid carriages	(2/3)
		3099	Manufacture of other transport equipment n.e.c.	(1/2)
		3250	Manufacture of medical and dental instruments and supplies	(2/6)
		3290	Other manufacturing n.e.c.	(4/5)
2911	Boilers and engines	2513	Manufacture of steam generators, except central heating hot water boilers	
		2811	Manufacture of engines and turbines, except aircraft, vehicle and cycle engines	(1/3)
2912	Pumps and compressors	2812	Manufacture of fluid power equipment	
		2813	Manufacture of other pumps, compressors, taps and valves	(1/2)
2913	Conveyors	2816	Manufacture of lifting and handling equipment	(1/2)
2914	Refrigerators and air conditioning apparatus	2819	Manufacture of other general-purpose machinery	(2/7)
2919	Miscellaneous general-purpose machinery	2592	Treatment and coating of metals; machining	(5/5)
		2811	Manufacture of engines and turbines, except aircraft, vehicle and cycle engines	(2/3)
		2813	Manufacture of other pumps, compressors, taps and valves	(2/2)
		2814	Manufacture of bearings, gears, gearing and driving elements	
		2815	Manufacture of ovens, furnaces and furnace burners	(2/3)
		2819	Manufacture of other general-purpose machinery	(3/7)
		3311	Repair of fabricated metal products	(1/2)
		3312	Repair of machinery	(1/3)
3011	Machinery for agricultural use	2821	Manufacture of agricultural and forestry machinery	
3012	Machinery and equipment for construction and mining	2824	Manufacture of machinery for mining, quarrying and construction	
3013	Textile machinery	2826	Manufacture of machinery for textile, apparel and leather production	(1/3)
3014	Daily lives industry machinary	2819	Manufacture of other general-purpose machinery	(4/7)
		2822	Manufacture of metal-forming machinery and machine tools	(2/3)
		2825	Manufacture of machinery for food, beverage and tobacco processing	
		2829	Manufacture of other special-purpose machinery	(2/6)
3015	Basic material industry machinery	2819	Manufacture of other general-purpose machinery	(5/7)
		2823	Manufacture of machinery for metallurgy	(1/2)
		2829	Manufacture of other special-purpose machinery	(3/6)
3016	Metal processing machinery	2818	Manufacture of power-driven hand tools	(2/2)
		2822	Manufacture of metal-forming machinery and machine tools	(3/3)
		2823	Manufacture of machinery for metallurgy	(2/2)
3017	Semiconductor making equipment	2829	Manufacture of other special-purpose machinery	(4/6)
3019	Miscellaneous production machinery	2593	Manufacture of cutlery, hand tools and general hardware	(2/2)
		2826	Manufacture of machinery for textile, apparel and leather production	(2/3)
		2829	Manufacture of other special-purpose machinery	(5/6)
3111	Office machines	2817	Manufacture of office machinery and equipment (except computers and peripheral equipment)	(2/3)

Minor Aggregated Classification in 2015 Input-Output Tables		ISIC(Rev.4)		
Code	Sector name	Code	Name	
3112	Service industry and amusement machines	2790	Manufacture of other electrical equipment	(2/6)
		2819	Manufacture of other general-purpose machinery	(6/7)
		2826	Manufacture of machinery for textile, apparel and leather production	(3/3)
		2829	Manufacture of other special-purpose machinery	(6/6)
3113	Measuring instruments	2651	Manufacture of measuring, testing, navigating and control equipment	(1/2)
		2819	Manufacture of other general-purpose machinery	(7/7)
		3250	Manufacture of medical and dental instruments and supplies	(3/6)
3114	Medical instruments	2660	Manufacture of irradiation, electromedical and electrotherapeutic equipment	(1/4)
		3250	Manufacture of medical and dental instruments and supplies	(4/6)
3115	Optical instruments and lenses	2670	Manufacture of optical instruments and photographic equipment	(1/2)
3116	Ordnance	2520	Manufacture of weapons and ammunition	
		3040	Manufacture of military fighting vehicles	
3211	Electronic devices	2610	Manufacture of electronic components and boards	(1/2)
		2660	Manufacture of irradiation, electromedical and electrotherapeutic equipment	(2/4)
3299	Miscellaneous electronic components	2610	Manufacture of electronic components and boards	(2/2)
		2680	Manufacture of magnetic and optical media	
3311	Electrical devices and parts	2710	Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus	
		2733	Manufacture of wiring devices	
		2790	Manufacture of other electrical equipment	(3/6)
		2815	Manufacture of ovens, furnaces and furnace burners	(3/3)
		2930	Manufacture of parts and accessories for motor vehicles	(3/4)
3321	Household electric appliances	2750	Manufacture of domestic appliances	(3/3)
3331	Applied electronic equipment	2660	Manufacture of irradiation, electromedical and electrotherapeutic equipment	(3/4)
3332	Electric measuring instruments	2651	Manufacture of measuring, testing, navigating and control equipment	(2/2)
		2660	Manufacture of irradiation, electromedical and electrotherapeutic equipment	(4/4)
3399	Miscellaneous electrical machinery	2720	Manufacture of batteries and accumulators	
		2740	Manufacture of electric lighting equipment	
		2790	Manufacture of other electrical equipment	(4/6)
3411	Communication equipment	2630	Manufacture of communication equipment	(1/2)
		2640	Manufacture of consumer electronics	(1/3)
		2790	Manufacture of other electrical equipment	(5/6)
3412	Image and audio equipment	2630	Manufacture of communication equipment	(2/2)
		2640	Manufacture of consumer electronics	(2/3)
		2670	Manufacture of optical instruments and photographic equipment	(2/2)
3421	Electronic computing equipment and accessory equipment of electronic computing equipment	2620	Manufacture of computers and peripheral equipment	
3511	Passenger motor cars	2910	Manufacture of motor vehicles	(1/2)
3521	Trucks, buses and miscellaneous cars	2910	Manufacture of motor vehicles	(2/2)
		2920	Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers	
3522	Two-wheel motor vehicles	3091	Manufacture of motorcycles	(2/3)
3531	Motor vehicle parts and accessories	2930	Manufacture of parts and accessories for motor vehicles	(4/4)
		3091	Manufacture of motorcycles	(3/3)
3541	Ships and repair of ships	2811	Manufacture of engines and turbines, except aircraft, vehicle and cycle engines	(3/3)
		3011	Building of ships and floating structures	
		3012	Building of pleasure and sporting boats	
		3315	Repair of transport equipment, except motor vehicles	(1/3)
3591	Rolling stock and repair of rolling stock	3020	Manufacture of railway locomotives and rolling stock	
		3315	Repair of transport equipment, except motor vehicles	(2/3)
3592	Aircrafts and repair of air crafts	1392	Manufacture of made-up textile articles, except apparel	(2/2)
		3030	Manufacture of air and spacecraft and related machinery	(1/2)
		3312	Repair of machinery	(2/3)
		3315	Repair of transport equipment, except motor vehicles	(3/3)
3599	Rolling stock and repair of rolling stock	2816	Manufacture of lifting and handling equipment	(2/2)
		3030	Manufacture of air and spacecraft and related machinery	(2/2)
		3092	Manufacture of bicycles and invalid carriages	(3/3)
		3099	Manufacture of other transport equipment n.e.c.	(2/2)
3911	Miscellaneous transport equipment	2640	Manufacture of consumer electronics	(3/3)
		3230	Manufacture of sports goods	
		3240	Manufacture of games and toys	
3919	Miscellaneous manufacturing products	1622	Manufacture of builders' carpentry and joinery	(4/4)
		1623	Manufacture of wooden containers	(2/2)
		1629	Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials	(3/3)
		1820	Reproduction of recorded media	
		2022	Manufacture of paints, varnishes and similar coatings, printing ink and mastics	(2/2)
		2029	Manufacture of other chemical products n.e.c.	(4/4)
		2652	Manufacture of watches and clocks	
		2790	Manufacture of other electrical equipment	(6/6)
		2817	Manufacture of office machinery and equipment (except computers and peripheral equipment)	(3/3)
		3100	Manufacture of furniture	(2/2)
		3211	Manufacture of jewellery and related articles	
		3212	Manufacture of imitation jewellery and related articles	(2/2)
		3220	Manufacture of musical instruments	(2/2)
		3250	Manufacture of medical and dental instruments and supplies	(5/6)
		3290	Other manufacturing n.e.c.	(5/5)

Minor Aggregated Classification in 2015 Input-Output Tables		ISIC(Rev.4)		
Code	Sector name	Code	Name	
3921	Reuse and recycling	3830	Materials recovery	(3/4)
		4669	Wholesale of waste and scrap and other products n.e.c.	(1/2)
4111	Residential construction	3320	Installation of industrial machinery and equipment	
4112	Non-residential construction	4100	Construction of buildings	
4121	Repair of construction	4210	Construction of roads and railways	
4131	Public construction	4220	Construction of utility projects	
4191	Miscellaneous civil engineering and construction	4290	Construction of other civil engineering projects	
		4311	Demolition	
		4312	Site preparation	
		4321	Electrical installation	
		4322	Plumbing, heat and air-conditioning installation	
		4329	Other construction installation	
		4330	Building completion and finishing	
		4390	Other specialized construction activities	
		8130	Landscape care and maintenance service activities	(1/2)
4611	Electricity	3510	Electric power generation, transmission and distribution	
4621	Gas supply	3520	Manufacture of gas; distribution of gaseous fuels through mains	
4622	Steam and hot water supply	3530	Steam and air conditioning supply	(2/2)
4711	Water supply	3600	Water collection, treatment and supply	(1/2)
		3700	Sewerage	(1/2)
4811	Waste management service	3700	Sewerage	(2/2)
		3811	Collection of non-hazardous waste	
		3812	Collection of hazardous waste	
		3821	Treatment and disposal of non-hazardous waste	(2/2)
		3822	Treatment and disposal of hazardous waste	
		8412	Regulation of the activities of providing health care, education, cultural services and other social services, excluding social security	(1/5)
5111	Wholesale trade	4510	Sale of motor vehicles	(1/2)
		4520	Maintenance and repair of motor vehicles	(1/3)
		4530	Sale of motor vehicle parts and accessories	(1/2)
		4540	Sale, maintenance and repair of motorcycles and related parts and accessories	(1/3)
		4610	Wholesale on a fee or contract basis	
		4620	Wholesale of agricultural raw materials and live animals	
		4630	Wholesale of food, beverages and tobacco	
		4641	Wholesale of textiles, clothing and footwear	
		4649	Wholesale of other household goods	
		4651	Wholesale of computers, computer peripheral equipment and software	
		4652	Wholesale of electronic and telecommunications equipment and parts	
		4653	Wholesale of agricultural machinery, equipment and supplies	(1/2)
		4659	Wholesale of other machinery and equipment	
		4661	Wholesale of solid, liquid and gaseous fuels and related products	
		4662	Wholesale of metals and metal ores	
		4663	Wholesale of construction materials, hardware, plumbing and heating equipment and supplies	
		4669	Wholesale of waste and scrap and other products n.e.c.	(2/2)
		4690	Non-specialized wholesale trade	
5112	Retail trade	1071	Manufacture of bakery products	(2/2)
		4510	Sale of motor vehicles	(2/2)
		4520	Maintenance and repair of motor vehicles	(2/3)
		4530	Sale of motor vehicle parts and accessories	(2/2)
		4540	Sale, maintenance and repair of motorcycles and related parts and accessories	(2/3)
		4653	Wholesale of agricultural machinery, equipment and supplies	(2/2)
		4711	Retail sale in non-specialized stores with food, beverages or tobacco predominating	
		4719	Other retail sale in non-specialized stores	
		4721	Retail sale of food in specialized stores	
		4722	Retail sale of beverages in specialized stores	
		4723	Retail sale of tobacco products in specialized stores	
		4730	Retail sale of automotive fuel in specialized stores	
		4741	Retail sale of computers, peripheral units, software and telecommunications equipment in specialized stores	
		4742	Retail sale of audio and video equipment in specialized stores	
		4751	Retail sale of textiles in specialized stores	
		4752	Retail sale of hardware, paints and glass in specialized stores	
		4753	Retail sale of carpets, rugs, wall and floor coverings in specialized stores	
		4759	Retail sale of electrical household appliances, furniture, lighting equipment and other household articles in specialized stores	
		4761	Retail sale of books, newspapers and stationary in specialized stores	
		4762	Retail sale of music and video recordings in specialized stores	
		4763	Retail sale of sporting equipment in specialized stores	
		4764	Retail sale of games and toys in specialized stores	
		4771	Retail sale of clothing, footwear and leather articles in specialized stores	
		4772	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles in specialized stores	
		4773	Other retail sale of new goods in specialized stores	(1/2)
		4774	Retail sale of second-hand goods	
		4781	Retail sale via stalls and markets of food, beverages and tobacco products	
		4782	Retail sale via stalls and markets of textiles, clothing and footwear	
		4789	Retail sale via stalls and markets of other goods	

Minor Aggregated Classification in 2015 Input-Output Tables		ISIC(Rev.4)	
Code	Sector name	Code	Name
5112	Retail trade	4791	Retail sale via mail order houses or via Internet
		4799	Other retail sale not in stores, stalls or markets
		6492	Other credit granting (1/2)
5311	Financial service	6411	Central banking
		6419	Other monetary intermediation
		6430	Trusts, funds and similar financial entities
		6492	Other credit granting (2/2)
		6499	Other financial service activities, except insurance and pension funding activities, n.e.c.
		6512	Non-life insurance (1/2)
		6520	Reinsurance (1/2)
		6611	Administration of financial markets
		6612	Security and commodity contracts brokerage
		6619	Other activities auxiliary to financial service activities
		6630	Fund management activities
		8291	Activities of collection agencies and credit bureaus (1/2)
5312	Insurance	6530	Pension funding (1/2)
		6511	Life insurance
		6512	Non-life insurance (2/2)
		6520	Reinsurance (2/2)
		6621	Risk and damage evaluation
		6622	Activities of insurance agents and brokers
		6629	Other activities auxiliary to insurance and pension funding
5511	Real estate agencies and rental services	6810	Real estate activities with own or leased property (1/3)
		6820	Real estate activities on a fee or contract basis (1/3)
5521	House rent	6810	Real estate activities with own or leased property (2/3)
5531	House rent (imputed house rent)		N/A
5711	Railway transport (passengers)	4911	Passenger rail transport, interurban
		4921	Urban and suburban passenger land transport (1/2)
		4922	Other passenger land transport (1/2)
		5221	Service activities incidental to land transportation (1/2)
5712	Railway transport (freight)	4912	Freight rail transport
5721	Road transport service	4921	Urban and suburban passenger land transport (2/2)
		4922	Other passenger land transport (2/2)
5722	Road freight transport (except self-transport)	4923	Freight transport by road
5731	Self-transport (passengers)		N/A
5732	Self-transport (freight)		N/A
5741	International shipping	5011	Sea and coastal passenger water transport (1/3)
		5012	Sea and coastal freight water transport (1/2)
		7730	Renting and leasing of other machinery, equipment and tangible goods (1/4)
5742	Coastal and inland water transport	5011	Sea and coastal passenger water transport (2/3)
		5012	Sea and coastal freight water transport (2/2)
		5021	Inland passenger water transport (1/2)
		5022	Inland freight water transport
		7730	Renting and leasing of other machinery, equipment and tangible goods (2/4)
5743	Harbor transport service	5224	Cargo handling (1/2)
5751	Air transport	5110	Passenger air transport
		5120	Freight air transport
		7310	Advertising (1/3)
		7420	Photographic activities (1/2)
5761	Freight forwarding	5229	Other transportation support activities (1/4)
		5320	Courier activities (1/2)
5771	Storage facility service	5210	Warehousing and storage
5781	Packing service	5229	Other transportation support activities (2/4)
5789	Miscellaneous services relating to transport	3600	Water collection, treatment and supply (2/2)
		5221	Service activities incidental to land transportation (2/2)
		5222	Service activities incidental to water transportation
		5223	Service activities incidental to air transportation
		5224	Cargo handling (2/2)
		5229	Other transportation support activities (3/4)
		6810	Real estate activities with own or leased property (3/3)
		6820	Real estate activities on a fee or contract basis (2/3)
		7911	Travel agency activities
		7912	Tour operator activities
5791	Postal services and mail delivery	4773	Other retail sale of new goods in specialized stores (2/2)
		5310	Postal activities
		5320	Courier activities (2/2)
5911	Communications	6110	Wired telecommunications activities (1/2)
		6120	Wireless telecommunications activities
		6130	Satellite telecommunications activities (1/2)
		6190	Other telecommunications activities
5921	Broadcasting	6010	Radio broadcasting
		6020	Television programming and broadcasting activities
		6110	Wired telecommunications activities (2/2)
		6130	Satellite telecommunications activities (2/2)

Minor Aggregated Classification in 2015 Input-Output Tables		ISIC(Rev.4)		
Code	Sector name	Code	Name	
5931	Information services	5820	Software publishing	
		6201	Computer programming activities	
		6202	Computer consultancy and computer facilities management activities	
		6209	Other information technology and computer service activities	
		6311	Data processing, hosting and related activities	(1/2)
		6399	Other information service activities n.e.c.	(1/3)
		7320	Market research and public opinion polling	
5941	Internet based services	6311	Data processing, hosting and related activities	(2/2)
		6312	Web portals	
		6399	Other information service activities n.e.c.	(2/3)
5951	Image information, sound information and character information production	5811	Book publishing	
		5812	Publishing of directories and mailing lists	
		5813	Publishing of newspapers, journals and periodicals	
		5819	Other publishing activities	
		5911	Motion picture, video and television programme production activities	
		5912	Motion picture, video and television programme post-production activities	
		5913	Motion picture, video and television programme distribution activities	
		5920	Sound recording and music publishing activities	
		6391	News agency activities	
		7810	Activities of employment placement agencies	(1/3)
6111	Public administration (central)	8411	General public administration activities	(1/2)
		8412	Regulation of the activities of providing health care, education, cultural services and other social services, excluding social security	(2/5)
		8413	Regulation of and contribution to more efficient operation of businesses	(1/2)
		8421	Foreign affairs	
		8422	Defence activities	
		8423	Public order and safety activities	(1/2)
		8430	Compulsory social security activities	(1/2)
6112	Public administration (local)	8411	General public administration activities	(2/2)
		8412	Regulation of the activities of providing health care, education, cultural services and other social services, excluding social security	(3/5)
		8413	Regulation of and contribution to more efficient operation of businesses	(2/2)
		8423	Public order and safety activities	(2/2)
6311	School education	5629	Other food service activities	(1/2)
		8510	Pre-primary and primary education	
		8521	General secondary education	(1/3)
		8522	Technical and vocational secondary education	
		8530	Higher education	(1/3)
6312	Social education and miscellaneous educational and training institutions	8521	General secondary education	(2/3)
		8530	Higher education	(2/3)
		8541	Sports and recreation education	(1/2)
		8549	Other education n.e.c.	(1/2)
		8550	Educational support activities	(1/2)
		8890	Other social work activities without accommodation	(1/2)
		9101	Other social work activities without accommodation	
		9102	Other social work activities without accommodation	
		9103	Other social work activities without accommodation	
6321	Research institutes	7210	Research and experimental development on natural sciences and engineering	
		7220	Research and experimental development on social sciences and humanities	
		8530	Higher education	(3/3)
6322	Research and development		N/A	
6411	Medical service	3250	Manufacture of medical and dental instruments and supplies	(6/6)
		8610	Hospital activities	(1/2)
		8620	Medical and dental practice activities	(1/2)
		8690	Other human health activities	(1/3)
6421	Health and hygiene	8412	Regulation of the activities of providing health care, education, cultural services and other social services, excluding social security	(4/5)
6431	Social insurance and social welfare	6530	Pension funding	(2/2)
		8430	Compulsory social security activities	(2/2)
		8521	General secondary education	(3/3)
		8690	Other human health activities	(2/3)
		8710	Residential nursing care facilities	(1/2)
		8720	Residential care activities for mental retardation, mental health and substance abuse	
		8730	Residential care activities for the elderly and disabled	(1/2)
		8790	Other residential care activities	
		8810	Social work activities without accommodation for the elderly and disabled	(1/2)
		8890	Other social work activities without accommodation	(2/2)
6441	Nursing care	8610	Hospital activities	(2/2)
		8620	Medical and dental practice activities	(2/2)
		8690	Other human health activities	(3/3)
		8710	Residential nursing care facilities	(2/2)
		8730	Residential care activities for the elderly and disabled	(2/2)
		8810	Social work activities without accommodation for the elderly and disabled	(2/2)

Minor Aggregated Classification in 2015 Input-Output Tables		ISIC(Rev.4)		
Code	Sector name	Code	Name	
6599	Membership-based associations, n.e.c.	8412	Regulation of the activities of providing health care, education, cultural services and other social services, excluding social security	(5/5)
		9411	Activities of business and employers membership organizations	
		9412	Activities of professional membership organizations	
		9420	Activities of trade unions	
		9491	Activities of religious organizations	(1/2)
		9492	Activities of political organizations	
		9499	Activities of other membership organizations n.e.c.	
6611	Goods rental and leasing (except car rental)	6491	Financial leasing	(1/2)
		7721	Renting and leasing of recreational and sports goods	
		7722	Renting of video tapes and disks	
		7729	Renting and leasing of other personal and household goods	
		7730	Renting and leasing of other machinery, equipment and tangible goods	(3/4)
6612	Car rental and leasing	6491	Financial leasing	(2/2)
		7710	Renting and leasing of motor vehicles	
		7730	Renting and leasing of other machinery, equipment and tangible goods	(4/4)
6621	Advertising services	7310	Advertising	(2/3)
6631	Motor vehicle maintenance services	4520	Maintenance and repair of motor vehicles	(3/3)
		4540	Sale, maintenance and repair of motorcycles and related parts and accessories	(3/3)
6632	Repair of machine	3311	Repair of fabricated metal products	(2/2)
		3312	Repair of machinery	(3/3)
		3313	Repair of electronic and optical equipment	
		3314	Repair of electrical equipment	
		3319	Repair of other equipment	
		9511	Repair of computers and peripheral equipment	
		9512	Repair of communication equipment	
		9521	Repair of consumer electronics	
		9522	Repair of household appliances and home and garden equipment	
6699	Miscellaneous business services	3830	Materials recovery	(4/4)
		5229	Other transportation support activities	(4/4)
		6399	Other information service activities n.e.c.	(3/3)
		6820	Real estate activities on a fee or contract basis	(3/3)
		6910	Legal activities	
		6920	Accounting, bookkeeping and auditing activities; tax consultancy	
		7020	Management consultancy activities	
		7110	Architectural and engineering activities and related technical consultancy	
		7120	Technical testing and analysis	
		7310	Advertising	(3/3)
		7410	Specialized design activities	
		7490	Other professional, scientific and technical activities n.e.c.	
		7740	Leasing of intellectual property and similar products, except copyrighted works	
		7810	Activities of employment placement agencies	(2/3)
		7820	Temporary employment agency activities	
		7830	Other human resources provision	
		8010	Private security activities	
		8020	Security systems service activities	
		8030	Investigation activities	
		8110	Combined facilities support activities	
		8121	General cleaning of buildings	
		8129	Other building and industrial cleaning activities	
		8211	Combined office administrative service activities	
		8219	Photocopying, document preparation and other specialized office support activities	
		8220	Activities of call centres	
		8230	Organization of conventions and trade shows	
		8291	Activities of collection agencies and credit bureaus	(2/2)
		8292	Packaging activities	
		8299	Other business support service activities n.e.c.	
		8550	Educational support activities	(2/2)
6711	Hotels	5510	Courier activities	
		5520	Courier activities	
		5590	Other accommodation	
6721	Eating and drinking services	5610	Restaurants and mobile food service activities	
		5621	Event catering	
		5629	Other food service activities	(2/2)
		5630	Beverage serving activities	
6731	Cleaning, barber shops, beauty shops and public baths	9601	Washing and (dry-) cleaning of textile and fur products	
		9602	Hairdressing and other beauty treatment	
		9609	Other personal service activities n.e.c.	(1/2)

Minor Aggregated Classification in 2015 Input-Output Tables		ISIC(Rev.4)		
Code	Sector name	Code	Name	
6741	Amusement and recreational services	5011	Sea and coastal passenger water transport	(3/3)
		5021	Inland passenger water transport	(2/2)
		5914	Motion picture projection activities	
		7810	Activities of employment placement agencies	(3/3)
		7990	Other reservation service and related activities	(1/2)
		9000	Other social work activities without accommodation	
		9200	Other social work activities without accommodation	(1/2)
		9311	Operation of sports facilities	
		9312	Activities of sports clubs	
		9319	Other sports activities	
		9321	Activities of amusement parks and theme parks	
		9329	Other amusement and recreation activities n.e.c.	
6799	Miscellaneous personal services	7420	Photographic activities	(2/2)
		7990	Other reservation service and related activities	(2/2)
		8130	Landscape care and maintenance service activities	(2/2)
		8541	Sports and recreation education	(2/2)
		8542	Cultural education	
		8549	Other education n.e.c.	(2/2)
		9200	Other social work activities without accommodation	(2/2)
		9491	Activities of religious organizations	(2/2)
		9523	Repair of footwear and leather goods	
		9524	Repair of furniture and home furnishings	
		9529	Repair of other personal and household goods	
		9603	Funeral and related activities	
		9609	Other personal service activities n.e.c.	(2/2)
		9700	Activities of households as employers of domestic personnel	
6811	Office supplies		N/A	
6911	Activities not elsewhere classified		N/A	

CHAPTER Ⅶ
CONCEPT, DEFINITION AND SCOPE BY SECTOR

This chapter stipulates the concept, definition, and scope of individual sectors that are shown in the basic sector classification table of the 2015 I-O Tables.

The concept, definition, and scope of the sectors are generally described in following ways.

(Column・Row Code、Sector Name)

Organized according to the coding number order. However, for sectors related to the major aggregated classification "Miscellaneous manufacturing products," there are some sectors that do not follow the coding number order, as there are some sectors that cover multiple categories.

(Ministry or agency in charge)

The responsible Ministry or Agency in charge of the sector is shown.

(Definition, Scope)

The definition and the scope of the sectors are summarized.

(Given examples)

Examples of major goods or services that are generated by the sector's activities are shown.

However, in cases where the major goods or services that are generated are clear from the row sector name, there are instances where given examples are omitted.

(Changes from the 2011 I-O Tables)

Major changes in concept, definition, and scope in the 2015 Input-Output Tables are shown if they differ from those of 2011 I-O Tables.

(Notes)

Points to remember with regard to concept, definition, or scope and changes made in the I-O Tables between 2005 and 2011 are listed.

Notes 1 A star mark in the column of the sector name signifies that sector's major acting body.

**・・・・・・・Non-market producer (General government)

*・・・・・・・・Non-market producer (Private non-profit institutions serving households)

(nothing)・・Market producer

2 P represents a dummy sector.

3 Based on the 12th revision of the Japan Standard Industrial Classification implemented in November 2007, "Establishments engaged in administrative or ancillary economic activities" was established as a minor classification for each medium industrial classification. However, in the 2015 I-O Tables, these activities are not established as an independent sector as in the 2011 I-O Tables and are conceptually handled as being included in each sector. This is not listed for each instance.

The Industry Number 7282 "Pure holding companies" of the Japan Standard Industrial Classification is handled in the same manner, as it does not have a core business, and is considered as having the same activities as "Establishments engaged in administrative or ancillary economic activities" since it is dedicated to management strategy, human resources strategy, decision-making, etc. of other companies.

§1 Endogenous Sectors

01 Agriculture, forestry and fishery

Column Code	Row Code	Sector Name
0111-01		Rice
	0111-011	Rice
	0111-012	Rice straw

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of "Rice farming" as specified in Industry Number 0111 of the Japan Standard Industrial Classification.

(Given examples)

Rice, rice straw

Column Code	Row Code	Sector Name
0111-02		Wheat, barley and the like
	0111-021	Wheat
	0111-022	Barley

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for wheat, barley and the like among those listed as "Grain and soybean farming, except rice farming" as specified in Industry Number 0112 of the Japan Standard Industrial Classification.

(Given examples)

Wheat, barley (nijo, rokujo), hadaka-mugi

(Changes from the 2011 I-O Tables)

"0111-021 Wheat (domestic)" and "0111-022 Wheat (imported)" in the 2011 I-O Tables are integrated into "0111-021 Wheat"; "0111-023 Barley (domestic)" and "0111-024 Barley (imported)" are integrated into "0111-022 Barley."

Column Code	Row Code	Sector Name
0112-01		Potatoes and sweet potatoes
	0112-011	Sweet potatoes
	0112-012	Potatoes

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of "Potato and sweet potato farming" as specified in Industry Number 0117 of the Japan Standard Industrial Classification.

(Given examples)

Sweet potatoes, potatoes

(Notes)

Taro and yams are classified in the "0113-01 Vegetables (outdoor)" and "0113-001 Vegetables" sectors.

Column Code	Row Code	Sector Name
0112-02		Pulses
	0112-021	Soybeans
	0112-029	Miscellaneous pulses

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for pulses among those listed as "Grain and soybean farming, except rice farming" as specified in Industry Number 0112 of the Japan Standard Industrial Classification.

(Given examples)

Soybeans (domestic), soybeans (imported), other pulses (peas, broad beans, kidney beans, adzuki beans, Sasage, peanuts, other pulses)

(Changes from the 2011 I-O Tables)

"0112-021 Soybeans (domestic)" and "0112-022 Soybeans (imported)" in the 2011 I-O Tables are integrated into "0112-021 Soybeans."

(Notes)

Immature soybeans, peas, broad beans, and kidney beans are classified in the "0113-01 Vegetables (outdoor)" and "0113-001 Vegetables" sectors.

Column Code	Row Code	Sector Name
	0113-001	Vegetables
0113-01		Vegetables (outdoor)
0113-02		Vegetables (under facilities)

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for Vegetables for among those listed as "Vegetable farming, including mushrooms" as specified in Industry Number 0113 of the Japan Standard Industrial Classification.

Furthermore, the scope of Vegetables (under facilities) corresponds to the vegetable production activities of glasshouses (a facility covered by glass and in which one is able to conduct work in a normal posture) or houses (a facility covered by material other than glass, and in which one is able to conduct work in a normal posture); the scope of Vegetables (outdoor) corresponds to vegetable production activities based on other methods.

(Given examples)

Fruit vegetables (outdoor): Pumpkins, green peppers, cucumbers, melons (outdoor), watermelons, eggplants, tomatoes, young peas (immature peas), immature corn, green soybeans (immature soybeans), kidney beans (immature kidney beans)

Leafy vegetables (outdoor): Cabbages, Chinese cabbages, non-fruit Chinese cabbages, spinach, long leeks, onions, leeks, hornworts, crown daisies, garlic, lettuces, celery, cauliflower, broccoli, asparagus, bamboo shoots

Root vegetables: Japanese radish, Japanese turnip, carrots, burdock root, taros, yams, lotus root, ginger

Fruit vegetables (under facilities): pumpkins, green peppers, cucumbers, greenhouse melon, watermelons, eggplants, tomatoes, strawberries

Leafy vegetables (under facilities)): Lettuces, bean sprouts

(Notes)

The production in plastic tunnels was classified under "Vegetables (under facilities)" in the 2005 I-O Tables but changed to "Vegetables (outdoor)" in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
0114-01	0114-011	Fruits

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of "Fruit and nut farming" as specified in Industry Number 0114 of the Japan Standard Industrial Classification.

(Given examples)

Oranges, summer oranges, navel oranges, hassaku oranges, iyo oranges, grapefruits (imported), apples, grapes, Japanese pears, pears, peaches, Japanese plums, otoh, Japanese apricots, loquats, persimmons, Japanese chestnuts, kiwi fruits, pineapples, bananas (imported), and the growing of fruits

(Changes from the 2011 I-O Tables)

"0114-011 Citrus fruits," "0114-012 Apples" and "0114-019 Miscellaneous fruits" in the 2011 I-O Tables are integrated into "0114-011 Fruits."

Column Code	Row Code	Sector Name
0115-01	0115-011	Sugar crops

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for sugar crops among those listed as "Crop farming for industrial products" as specified in Industry Number 0116 of the Japan Standard Industrial Classification

(Given examples)

Sugar canes, sugar beets

Column Code	Row Code	Sector Name
0115-02		Crops for beverages
	0115-021	Green coffee and cocoa beans (imported)
	0115-029	Miscellaneous crops for beverages

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for crops for beverages that are among those listed as "Crop farming for industrial products" as specified in Industry Number 0116 of the Japan Standard Industrial Classification

(Given examples)

Coffee beans, cocoa beans (imported), materials for beverages, tea leaves, hops, and the growing of tea leaves

Column Code	Row Code	Sector Name
0115-09		Miscellaneous edible crops
	0115-091	Miscellaneous cereals
	0115-099	Edible crops, n.e.c.

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for edible crops, n.e.c that are not elsewhere classified among those listed as "Grain and soybean farming, except rice farming" as specified in Industry Number 0112 or "Crop farming for industrial products" as specified in Industry Number 0116 of the Japan Standard Industrial Classification.

(Given examples)

Miscellaneous cereals (edible crops): Buckwheat, enbaku, corn, foxtail millet, millet, hie, grain sorghum (imported)

Edible crops, n.e.c.: Rape seeds (seeds), sesame, olives, konnyaku potatoes, spice crops (imported), cassava taro for feed (imported)

(Changes from the 2011 I-O Tables)

"0115-092 Oil seeds" in the 2011 I-O Tables is integrated into "0115-099 Edible crops, n.e.c."

(Notes)

The code and name "0115-093 Edible industrial crops, n.e.c." in the 2005 I-O Tables was changed to "0115-099 Edible crops, n.e.c." in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
0116-01	0116-011	Feed and forage crops

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of "Miscellaneous crop farming" as specified in Industry Number 0119 of the Japan Standard Industrial Classification.

(Given examples)

Pasture grass, young corns, feed turnips

Column Code	Row Code	Sector Name
0116-02	0116-021	Seeds and seedlings

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for bulbs among those listed as "Floriculture" as specified in Industry Number 0115 of the Japan Standard Industrial Classification and production activities for seeds and seedlings among those listed as production activities of bulbs as specified in "Miscellaneous crop farming" as specified in Industry Number 0119 of the Japan Standard Industrial Classification; production activities relating to products inputted directly to their own sectors are excluded.

(Given examples)

Farm products seeds (excluding stock farm products and cocoons), bulbs, seedlings (excluding seedlings for mountain planting), plant growth of seedlings

(Notes)

Flowering tree saplings are included in "0116-03, -031 Flowers and plants"

Column Code	Row Code	Sector Name
0116-03	0116-031	Flowers and plants

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of "Floriculture" as specified in Industry Number 0115 of the Japan Standard Industrial Classification.

(Given examples)

Cut flowers, potted plants, flowering trees (bearing trees), saplings for flower gardens, grasses, ground cover plants, plant growth of flowering trees (bearing trees)

Column Code	Row Code	Sector Name
0116-09		Miscellaneous inedible crops
	0116-091	Leaf tobacco
	0116-092	Raw rubber (imported)
	0116-093	Raw cotton (imported)
	0116-099	Inedible crops, n.e.c.

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for other inedible crops that are not elsewhere classified among those listed as "Crop farming for industrial products" as specified in Industry Number 0116 of the Japan Standard Industrial Classification; scraps and by-products (waste cotton) produced by other sectors are competing with "0116-093 Raw cotton (imported)."

(Given examples)

Leaf tobacco, raw rubber (imported), raw cotton (imported), medicinal crops (medicinal carrots, ama-cha-tsuru), crops for paper (paper mulberry, mitsumata plants, and so forth), crops for mattresses (rushes and so forth)

(Notes)

The name of the "0116-099" sector was changed from "Crops for inedible agricultural products, n.e.c." in the 2005 I-O Tables to "Inedible crops, n.e.c." in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
0121-01		Dairy cattle farming
	0121-011	Raw milk
	0121-019	Miscellaneous dairy farming products

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of "Dairy cattle farming" as specified in Industry Number 0121 of the Japan Standard Industrial Classification.

(Given examples)

Raw milk, young milk cows (for slaughter or breeding), increase in growth of young milk cows, culled dairy cattle, manure

Column Code	Row Code	Sector Name
0121-02	0121-021	Beef cattle

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of "Beef cattle farming" as specified in Industry Number 0122 of the Japan Standard Industrial Classification.

(Given examples)

Cattle for slaughter (including the increase of the number of breeding in relation to the number of cattle), cattle for breeding, manure

Column Code	Row Code	Sector Name
0121-03	0121-031	Hogs

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of "Pig and hog farming" as specified in Industry Number 0123 of the Japan Standard Industrial Classification.

(Given examples)

Hogs (including the increase of the number of young hogs in relation to the number of hogs), manure

Column Code	Row Code	Sector Name
0121-04	0121-041	Hen eggs

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for hen eggs among those listed as "Layers and broilers farming" as specified in Industry Number 0124 of the Japan Standard Industrial Classification.

(Given examples)

Hen eggs, hens (including the increase of the number of chickens in relation to the number of hens), abnormal eggs, chicken manure

Column Code	Row Code	Sector Name
0121-05	0121-051	Chickens

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for fowls and broilers among those listed as "Layers and broilers farming" as specified in Industry Number 0124 of the Japan Standard Industrial Classification.

(Given examples)

Broilers, chicken manure

Column Code	Row Code	Sector Name
0121-09	0121-099	Miscellaneous livestock

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for livestock that are classified as "Livestock animals specialties" specified in Industry Number 0125, "Sericulture farming" as specified in Industry Number 0126, and "Miscellaneous livestock farming" as specified in Industry Number 0129 of the Japan Standard Industrial Classification; scraps and by-products (wool waste) are competing with this sector.

(Given examples)

Wool, horses (including stallions), goats, sheep, fur animals (the breeding of minks and rabbits, their furs, and other furs), edible fowl (excluding hens), other edible livestock (goat's milk, bee honey, quail eggs), pet animals (including insects), experimental animals (mice, guinea pigs), manure, sericulture

(Changes from the 2011 I-O Tables)

"0121-091 Sheep and lamb wool" and "0121-099 Livestock, n.e.c." in the 2011 I-O Tables are integrated into "0121-099 Miscellaneous livestock."

Column Code	Row Code	Sector Name
0131-01	0131-011	Veterinary service

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of "Veterinary services" as specified in Industry Number 7411 of the Japan Standard Industrial Classification.

Column Code	Row Code	Sector Name
0131-02	0131-021	Agricultural services (except veterinary service)

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of "AGRICULTURAL SERVICES, EXCEPT GARDENING SERVICES" as specified in Group Number 013 of the Japan Standard Industrial Classification.

(Given examples)

Grain elevators, rice centers, community facilities for rice seedbeds, land reformation areas, community sorting facilities for fruits and vegetables, crop spraying, community breeding beds for silkworms, stud services, incubator services

Column Code	Row Code	Sector Name
0151-01	0151-011	Silviculture

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of "Silviculture" under Industry Number 0211, "Silviculture services" under Industry Number 0241 and "Forest tree saplings nursery services" under Industry Number 0243 of the Japan Standard Industrial Classification.

(Given examples)

Seedlings, the planting of trees

(Notes)

(1) Although seedlings for forestry use are intermediate products, they are included in this sector.

(2) This sector covers "Silviculture services" under Industry Number 0241 and "Forest tree saplings nursery services" under Industry Number 0243 of the Japan Standard Industrial Classification, but does not record its production value because of transaction within its own sector.

Column Code	Row Code	Sector Name
0152-01	0152-011	Logs

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of "Logging" under Industry Number 0221 and "Logging services" under Industry Number 0242 of the Japan Standard Industrial Classification.

(Given examples)

Logs (hewn lumber, large-cut parts)

(Notes)

This sector covers "Logging services" under Industry Number 0242 of the Japan Standard Industrial Classification, but does not record its production value because of transaction within its own sector.

Column Code	Row Code	Sector Name
0153-01	0153-011	Special forest products (including hunting)

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production and harvesting activities of forest products, excluding logs, for general use among those listed as "Vegetable farming, including mushrooms" as specified in Industry Number 0113, and production activities for "Cutting of fuelwood and charcoal-making" as specified in Industry Number 0231, "Miscellaneous special forest product production, except mushrooms" as specified in Industry Number 0239, "Miscellaneous forestry services" as specified in Industry Number 0249, and "Miscellaneous forestry" as specified in Industry Number 0299.

(Given examples)

Mushrooms (matsutake, shiitake, velvet shank, and so forth), nuts (chestnuts, walnuts, and so forth), root bend bamboo, raw lacquer from lacquer trees, japan wax, bamboo, fire wood, charcoal, animal skins from hunting

(Notes)

(1) Cultivated nuts are classified under "0114-01, -011 Fruits."

(2) This sector covers "Miscellaneous forestry services" under Industry Number 0249 of the Japan Standard Industrial Classification, but does not record its production value because of transaction within its own sector.

Column Code	Row Code	Sector Name
0171-01	0171-011	Marine fishery

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of “MARINE FISHERIES” under Group Number 031 of the Japan Standard Industrial Classification.

(Given examples)

Fish, shrimp, crabs, squid, octopus, sea urchins, sea cucumbers, shellfish, seaweed, whales

(Changes from the 2011 I-O Tables)

“0171-011 Marine fishery (domestic)” and “0171-012 Marine fishery (imported)” in the 2011 I-O Tables are integrated into “0171-011 Marine fishery.”

Column Code	Row Code	Sector Name
0171-02	0171-021	Marine aquaculture

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of “MARINE AQUACULTURE” as specified in Group Number 041 of the Japan Standard Industrial Classification.

(Given examples)

Horse mackerel, yellowtail, sea breams, prawns, sea squirts, scallops, oysters, konbu seaweed, wakame seaweed, seaweed, pearls

Column Code	Row Code	Sector Name
	0172-001	Inland water fishery and inland water aquaculture
0172-01		Inland water fishery
0172-02		Inland water aquaculture

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of “INLAND WATER FISHERIES” as specified under Group Number 032 and “INLAND WATER AQUACULTURE” under Group Number 042 of the Japan Standard Industrial Classification.

(Given examples)

Inland water fishery: Salmons and trouts, smelts, sweetfish, whitebait, carp, crucians, eels, corbiculas, shrimp

Inland water aquaculture: Trout, sweetfish, carp, crucians, eels,water pearls, ornamental fish

(Notes)

Domestic production from fish caught by recreational fishers, which was classified under inland water fishery up to the 2005 I-O Tables, is not included.

06 Mining

Column Code	Row Code	Sector Name
0611-01		Coal mining, crude petroleum and natural gas
	0611-011	Coal mining
	0611-012	Crude petroleum
	0611-013	Natural gas

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The extraction and sorting activities of "COAL AND LIGNITE MINING" as specified in Group Number 052 and "CRUDE PETROLEUM AND NATURAL GAS PRODUCTION" as specified in Group Number 053 of the Japan Standard Industrial Classification.

(Given examples)

Coal mining: Crude coal, fuel coal, anthracite, lignite, low-grade coal

Natural gas: Natural gas, liquefied natural gas, compressed gas

Column Code	Row Code	Sector Name
0621-01	0621-011	Gravel and quarrying

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The mining, quarrying, and ore sorting activities of "STONE QUARRYING, SAND, GRAVEL AND COBBLE-STONE PITS" under Group Number 054 of the Japan Standard Industrial Classification.

(Given examples)

Gravel, sand, peridotite (concentrate), olivine sand

Column Code	Row Code	Sector Name
0621-02	0621-021	Crushed stones

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Crushed stones" as specified in Industry Number 2181 of the Japan Standard Industrial Classification; scrap and by-products (tailing) that appear in other sectors are competing with this sector.

(Given examples)

Crushed stone, stone materials

Column Code	Row Code	Sector Name
0629-09		Miscellaneous ores
	0629-091	Iron ores
	0629-092	Non-ferrous metallic ores
	0629-093	Limestone
	0629-094	Materials for ceramics (except limestone)
	0629-099	Ores, n.e.c.

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The extraction and sorting activities of "METAL MINING" as specified in Group Number 051, "CERAMIC MINERAL MINING (MINERALS ONLY FOR REFRACTORY, POTTERY AND PORCELAIN, GLASS AND CEMENT MATERIALS)" as specified in Group Number 055 and "MISCELLANEOUS MINERAL MINING" as specified in Group Number 059 of the Japan Standard Industrial Classification.

Gypsum, chemical gypsum, water granulated slag, blast furnace slag, fly ash, glass scrap, and glass bottles generated as scrap or by-products in other sectors are competing with the "0629-094 Materials for ceramics (except limestone)" sector. Sulfur generated as by-products in other sectors is competing with the "0629-099 Ores, n.e.c." sector.

(Given examples)

Non-ferrous metallic ores: Copper, lead, zinc, gold, silver, tin, tungsten, iron sulfide

Materials for ceramics (except limestone): Silica, silica sand, dolomite, soapstone, clay, silicate, porcelain, kaolin

Ores, n.e.c.: Barite, bentonite, clay such as diatomite

(Changes from the 2011 I-O Tables)

"0611-01 Metallic ores" and "0639-09 Miscellaneous ores" in the 2011 I-O Tables are integrated into "0629-09 Miscellaneous ores."

11 Beverages and Foods

Column Code	Row Code	Sector Name
1111-01		Meat
	1111-011	Beef
	1111-012	Pork
	1111-013	Chicken meat
	1111-014	Miscellaneous meat
	1111-015	Byproducts of slaughtering and meat processing

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "Frozen meat and subprimal products" listed under Industry Number 0911, "Miscellaneous livestock products" listed under Industry Number 0919 and the production of edible fowl and their processing as specified in "Slaughterhouses" listed under Industry Number 9521of the Japan Standard Industrial Classification.

(Given examples)

Beef, pork, poultry, other meats (horse, ram, or kid meat), by-products of slaughtering (unprocessed skins, internal organs, and by-products of meat processing)

(Notes)

(1) Livestock products except for meat products are classified under "1119-09, -099 Miscellaneous foods."

(2) Frozen meat (including chicken) classified under "1119-09, -099 Miscellaneous foods" in the 2005 I-O Tables was integrated into this sector in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
1111-02		Dairy farm products
	1111-021	Drinking milk
	1111-022	Dairy products

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "Processed milk and milk beverage products" as specified in Industry Number 0913 and "Dairy products, except processed milk and milk beverage products" as specified in Industry Number 0914 of the Japan Standard Industrial Classification

(Given examples)

Drinking milk: Milk, processed milk

Dairy products: Milk drinks, milk powder, condensed milk, butter, cheese, ice-cream, powder mix, cream, fermented milk, lactic acid beverage

Column Code	Row Code	Sector Name
1111-09	1111-099	Miscellaneous livestock products

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production of "Meat products" and "Miscellaneous livestock products" listed under Industry Numbers 0912 and 0919 of the Japan Standard Industrial Classification respectively

(Given examples)

Ham, bacon, sausages, ground beef (chilled), roast pork, bottled and canned meat products (canned corned beef, canned boiled quail eggs), and other livestock products (refined honey, dried eggs, etc.)

(Changes from the 2011 I-O Tables)

(1) Bottled or canned meat products (canned corned beef, canned boiled quail eggs, etc.) classified under "1112-02, -021 Bottled or canned meat products" in the 2011 I-O Tables are integrated into this sector.

(2) Miscellaneous livestock products (refined honey, dried eggs, etc.) classified under "1119-09, -099 Miscellaneous foods" in the 2011 I-O Tables are integrated into this sector.

Column Code	Row Code	Sector Name
1112-01	1112-011	Frozen fish and shellfish

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "Frozen seafood products (unprocessed)" as specified in Industry Number 0925, and "Frozen seafood products (processed and packaged)" as specified in Industry Number 0926 of the Japan Standard Industrial Classification.

(Given examples)

Frozen fish and shellfish, frozen processed fish and shellfish (whole or cut into three pieces and processed as frozen "sashimi"), frozen minced fish, by-products of "fish bone with little flesh"

Column Code	Row Code	Sector Name
1112-02	1112-021	Salted, dried or smoked seafood

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for salted, dried, or smoked fish and shellfish from among those listed as "Salted-dried and salted products" as specified in Industry Number 0924 and "Miscellaneous seafood products" as specified in Industry Number 0929 of the Japan Standard Industrial Classification.

(Given examples)

Boiled and dried seafood, dried seafood, salted and dried seafood, smoked seafood, by-products of "fish bone with little flesh"

(Notes)

Dried shrimp and sweetened dried-fish are included in "1112-09, -099 Miscellaneous processed seafood"

Column Code	Row Code	Sector Name
1112-03	1112-031	Bottled or canned seafood

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "Canned or bottled seafood and seaweed" as specified in Industry Number 0921 of the Japan Standard Industrial Classification.

(Given examples)

Crab, salmon, tuna, bonito, mackerel, sardines, other bottled or canned seafood, by-products of "fish bone with little flesh"

(Notes)

Tsukudani (preserved seafood boiled reduced in soy sauce) are included, regardless of packaging, in sector "1112-09, -099 Miscellaneous processed seafood"

Column Code	Row Code	Sector Name
1112-04	1112-041	Fish paste

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "Fish paste products" listed under Industry Number 0923 of the Japan Standard Industrial Classification.

(Given examples)

Baked fish paste, boiled fish-paste, ham-and sausage-like products made of fish meat, by-products of "fish bone with little flesh"

Column Code	Row Code	Sector Name
1112-09	1112-099	Miscellaneous processed seafood

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities, excluding those for salted, dried, or smoked seafood, of "Seaweed products, except canned or bottled" listed under Industry Number 0922 and "Miscellaneous seafood products" listed under Industry Number 0929 of the Japan Standard Industrial Classification.

(Given examples)

Dried bonito, tsukudani seafood, agar-agar, toasted and flavored seaweed, dried shrimp, sweetened dried-fish

Column Code	Row Code	Sector Name
1113-01		Grain milling
	1113-011	Milled rice
	1113-019	Miscellaneous grain milling

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of "Rice, barley and naked barley cleaning and polishing" listed under Industry Number 0961 of the Japan Standard Industrial Classification.

(Given examples)

Milled rice, rice waste, rice bran, milled wheat, wheat waste

(Notes)

Rice (including unpolished rice), except for seeds and feed, is produced in this sector. For this reason, it is included in the domestic output of this sector, except for milled rice produced by farmers for home consumption.

Column Code	Row Code	Sector Name
1113-02		Flour and miscellaneous grain milled products
	1113-021	Wheat flour
	1113-029	Miscellaneous grain milled products

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of “Wheat flour milling” listed under Industry Number 0962 and “Miscellaneous flour and grain mill products” listed under Industry Number 0969 of the Japan Standard Industrial Classification.

(Given examples)

Wheat, “fusuma” powder, “soba” powder, “konnyaku” powder, rice powder

Column Code	Row Code	Sector Name
1114-01	1114-011	Noodles

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for “Noodles” listed under Industry Number 0992 of the Japan Standard Industrial Classification.

(Given examples)

Dried noodles, instant noodles, macaroni and spaghetti, noodles

Column Code	Row Code	Sector Name
1114-02	1114-021	Bread

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of “Bread” listed under Industry Number 0971, processed bread and sandwiches in “Sushi, box lunch and bread with ingredients” listed under Industry Number 0997, and manufacturing as part of “Retail bakeries (manufacturer-sellers)” listed under Industry Number 5863 of the Japan Standard Industrial Classification.

(Given examples)

Breads, cookie bread, processed bread, sandwiches

(Notes)

Includes production activities of manufacturing of goods that are manufactured and sold within retail stores.

Column Code	Row Code	Sector Name
1114-03	1114-031	Confectionery

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of “Pastries and cakes” listed under Industry Number 0972, “Biscuits, crackers and other dry bakery products” listed under Industry Number 0973, “Rice confectionery” listed under Industry Number 0974, “Miscellaneous bakery and confectionery products” listed under Industry Number 0979, instant cocoa as specified in “Food and related products, n.e.c” listed under Industry Number 0999, and activities of manufacturing of “Retail confectioneries (manufacturer-sellers)” listed under Industry Number 5861 of the Japan Standard Industrial Classification.

(Given examples)

Caramel, sweet drops, candies, chocolate, chewing gums, baked cookies, biscuits, rice cakes, Japanese cakes, cakes, snack cookies, fatty cakes, cocoa

(Notes)

Includes production activities of manufacturing of goods that are manufactured and sold within retail stores.

Column Code	Row Code	Sector Name
1115-01	1115-011	Preserved agricultural foodstuffs

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for “CANNED AND PRESERVED FRUIT AND VEGETABLE PRODUCTS” listed under Group Number 093 of the Japan Standard Industrial Classification.

(Given examples)

Dried vegetables, frozen vegetables, pickles, cup-jam, dried squash, dried cut radishes, mashed potatoes, dried persimmons, bottled or canned vegetables, bottled or canned fruits, condensed undiluted fruit juice

(Changes from the 2011 I-O Tables)

Bottled or canned jams, bottled or canned vegetables, bottled or canned fruits, and condensed undiluted fruit juice classified under “1116-01, -011 Bottled or canned vegetables and fruits” in the 2011 I-O Tables are integrated into this sector.

(Notes)

(1) Fruit and vegetable juices other than undiluted condensed fruit juices are classified in “1129-02, -021 Soft drinks,” and canned cakes are classified in “1114-03, -031 Confectionery.”

(2) Bottled or canned gravy sauce, soup, and tomato-based products (ketchup, puree) excluding juice, are classified in “1116-05, -051 Condiments and seasonings”

Column Code	Row Code	Sector Name
1116-01		Sugar
	1116-011	Refined sugar
	1116-019	Miscellaneous sugar and by-products of sugar manufacturing

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "Sugar, except refined sugar" listed under Industry Number 0951 and "Refined sugar products" listed under Industry Number 0952 of the Japan Standard Industrial Classification.

(Given examples)

Refined sugar (beet sugar, sugarcane), unrefined sugar, by-products (molasses, beet pulp)

(Notes)

This sector covers the production activities of non-refined sugar from cane (domestic) and of refined sugar from non-refined sources, but does not record their production value that carry out these processes because of input within their own sector.

Column Code	Row Code	Sector Name
1116-02	1116-021	Starch

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "Starch" listed under Industry Number 0991 of the Japan Standard Industrial Classification.

(Given examples)

Sweet potato starch, potato starch, wheat starch, corn starch, starch lees

Column Code	Row Code	Sector Name
1116-03	1116-031	Dextrose, syrup and isomerized sugar

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "Glucose, starch syrup and high-fructose corn syrup" listed under Industry Number 0953 of the Japan Standard Industrial Classification.

(Given examples)

Dextrose (dextrose (glucose) anhydrous, dextrose (glucose) monohydrate, dextrose (glucose) total sugar type), syrup (syrup, dried syrup), isomerized sugar

Column Code	Row Code	Sector Name
1116-04		Animal oil and fats, vegetable oil and meal
	1116-041	Vegetable oil
	1116-042	Animal oils and fats
	1116-043	Cooking oil
	1116-044	Vegetable meal

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for hardened oils (edible oils) listed among those specified in "ANIMAL AND VEGETABLE OILS AND FATS" under Group Number 098, and "Fatty acids, hydrogenated oils and glycerin" under Industry Group Number 1641 of the Japan Standard Industrial Classification.

The competing sector of the other sector's scrap and by-products (fruit juice strained lees, vegetable scrap) is "Vegetable meal."

(Given examples)

Vegetable oils and fats: Edible rape seed oil, edible bean oil, non-edible vegetable oils (linseed oil, castor oil)

Animal oils and fats: Animal oils and fats, refined lard, fish oils

Cooking oil: Margarine, shortening, purification lard

Vegetable meal: Rapeseed meal, soy meal, rice bran meal

Column Code	Row Code	Sector Name
1116-05	1116-051	Condiments and seasonings

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "SEASONINGS" listed under Group Number 094 of the Japan Standard Industrial Classification.

(Given examples)

Soybean paste, soy sauce, edible amino-acids, sauce, mayonnaise, tomato ketchup, tomato puree, edible acids, instant curry, glutamic acid soda, spices, soup, fermented seasonings, flavorings, gravy sauce, soba soup, rice and tea, toppings, instant soy bean

soup, clear soup, mayonnaise by-products (albumen)

Column Code	Row Code	Sector Name
1119-01	1119-011	Prepared frozen foods

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "Precooked frozen packed foods" listed under Industry Number 0995 of the Japan Standard Industrial Classification.

(Given examples)

Prepared frozen fried foods (croquettes, pork steak, fried fish), prepared frozen rice and grain, prepared frozen hamburgers, prepared frozen meat balls with rice powder covering

Column Code	Row Code	Sector Name
1119-02	1119-021	Retort foods

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "Retort pouch" listed under Industry Number 0998 of the Japan Standard Industrial Classification.

(Given examples)

Retort foods (Curry, bean curd flavor, meat sauce, soup)

Column Code	Row Code	Sector Name
1119-03	1119-031	Dishes, sushi and lunch boxes

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "'Sozai' (side-dish foods)" listed under Industry Number 0996, sushi and lunch boxes as specified in "Sushi, box lunch and bread with ingredients" listed under Industry Number 0997, and manufacturing as part of "Delicatessen stores" listed under Industry Number 5895 of the Japan Standard Industrial Classification.

(Given examples)

Side-dishes, sushi, lunch boxes

(Notes)

(1) Includes production activities for manufacturing food manufactured and sold inside retail stores.

(2) Processed breads and sandwiches are classified under "1114-02, -021 Bread."

Column Code	Row Code	Sector Name
1119-09	1119-099	Miscellaneous foods

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for " "Tofu" (bean curd)and "Aburage"(fried bean curd) " listed under Industry Number 0993, "Anko (sweet bean paste) and other related products" listed under Industry Number 0994, and production activities other than for instant cocoa as specified in "Food and related products, n.e.c" listed under Industry Number 0999 of the Japan Standard Industrial Classification.

(Given examples)

Tofu, aburage (fried bean curd), nama-age, ganmodoki, nama-an (sweet bean paste), konnyaku, natto (fermented soybeans), mugicha (barley tea), ripe bananas, juice powder, rice cakes, canned processed food (canned curry, canned meat sauce, canned soup, etc.)

(Changes from the 2011 I-O Tables)

(1) Canned processed food (canned curry, canned meat sauce, canned soup, etc.) classified under "1112-02, -021 Bottled or canned meat products" in the 2011 I-O Tables is integrated into this sector.

(2) Miscellaneous livestock products (refined honey, dried eggs, etc.) classified under this sector in the 2011 I-O Tables are integrated into "1111-09, -099 Miscellaneous livestock products."

(Notes)

Frozen meat (including chicken) classified under this sector in the 2005 I-O Tables was integrated into "1111-01 Meat" in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
1121-01	1121-011	Refined sake

(Ministry or agency in charge)

Ministry of Finance

(Definition, Scope)

The production activities for "Sake" (Japanese rice wine)" listed under Industry Number 1023 and the production activities for mirin as specified in "Distilled, rectified and blended liquors" listed under Industry Number 1024 of the Japan Standard Industrial Classification.

(Given examples)

Refined sake, mirin, sake lees, mirin lees

Column Code	Row Code	Sector Name
1121-02	1121-021	Malt liquors

(Ministry or agency in charge)

Ministry of Finance

(Definition, Scope)

The production activities for “Malt liquors” listed under Industry Number 1022 of the Japan Standard Industrial Classification.

(Given examples)

Beer, hops, beer lees, dry yeast, fresh yeast, low-malt beer

Column Code	Row Code	Sector Name
1121-03	1121-031	Whiskey and brandy

(Ministry or agency in charge)

Ministry of Finance

(Definition, Scope)

The production activities for whiskey and brandy listed among those of “Distilled, rectified and blended liquors” specified under Industry Number 1024 of the Japan Standard Industrial Classification.

Column Code	Row Code	Sector Name
1121-09	1121-099	Miscellaneous liquors

(Ministry or agency in charge)

Ministry of Finance

(Definition, Scope)

The production activities for “Wine, except “sake” (Japanese rice wine)” listed under Industry Number 1021 and “Distilled, rectified and blended liquors” excluding the production of whiskey, brandy, and mirin listed under Industry Number 1024 of the Japan Standard Industrial Classification.

(Given examples)

Fruit liquors, synthetic sake, shochu, spirits, liquors, miscellaneous brewage, miscellaneous liquors, additive alcohol

Column Code	Row Code	Sector Name
1129-01	1129-011	Tea and roasted coffee

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for “TEA AND COFFEE, EXCEPT SOFT DRINKS AND CARBONATED WATER” listed under Group Number 103 of the Japan Standard Industrial Classification.

(Given examples)

Green tea, tea, chinese tea, coffee

(Notes)

Coffee drinks, tea drinks and Chinese tea drinks are classified under “1129-02, -021 Soft drinks.” Barley tea is classified under “1119-09, -099 Miscellaneous foods.” Cocoa is classified under “1114-03, -031 Confectionery”

Column Code	Row Code	Sector Name
1129-02	1129-021	Soft drinks

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for “SOFT DRINKS AND CARBONATED WATER” listed under Group Number 101 of the Japan Standard Industrial Classification

(Given examples)

Carbonated drinks, fruit beverages, green tea beverages, tea drinks, oolong tea beverages, coffee drinks, barley tea beverages, soy milk beverages, mineral water, sports drinks, vegetable juices

(Changes from the 2011 I-O Tables)

Vegetable juice classified under “1116-01, -011 Bottled or canned vegetables and fruits” in the 2011 I-O Tables is integrated into this sector.

(Notes)

Fermented milk and lactic acid beverages are classified in “1111-02 Dairy farm products” and “1111-022 Dairy products”; undiluted condensed fruit juices and natural fruit juices are classified in “1115-01, -011 Preserved agricultural foodstuffs.”

Column Code	Row Code	Sector Name
1129-03	1129-031	Manufactured ice

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for “MANUFACTURED ICE” listed under Group Number 104 of the Japan Standard Industrial Classification.

(Given examples)

Salable ice

Column Code	Row Code	Sector Name
1131-01	1131-011	Feeds

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for “Balanced compound feeds” listed under Industry Group Number 1061 and “Elemental feeds” listed under Industry Group Number 1062 of the Japan Standard Industrial Classification.

This sector is the competing sector of the other sector’s scrap and by-products (meat scrap, cocoon scrap and by-products).

(Given examples)

Feed for livestock and poultry, feed for fish farming, pet foods, fish meal

Column Code	Row Code	Sector Name
1131-02	1131-021	Organic fertilizers, n.e.c.

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for “Organic fertilizers” listed under Industry Number 1063 of the Japan Standard Industrial Classification.

(Given examples)

Animal-based organic fertilizers (fish meal, meat and bone meal, processed poultry manure), plant-based organic fertilizers (rape seed oil lees, rice bran oil lees, cotton oil lees), others (manure)

(Notes)

N.e.c. refers to the column sector “0121-01 Dairy cattle farming” and row columns “0121-019 Miscellaneous dairy farming products,” “0121-02, -021 Beef cattle,” “0121-03, -031 Pork,” “0121-04, -041 Hen eggs,” and “0121-05, -051 Chickens,” as well as manure and chicken manure classified under the column sector “0121-09, -099 Miscellaneous livestock.”

Column Code	Row Code	Sector Name
1141-01	1141-011	Tobacco

(Ministry or agency in charge)

Ministry of Finance

(Definition, Scope)

The production activities of “TOBACCO MANUFACTURES” listed under Group Number 105 of the Japan Standard Industrial Classification.

(Given examples)

Rolled cigarettes, cigars, loose tobacco, pipe tobacco

15 Textile products

Column Code	Row Code	Sector Name
1511-01	1511-011	Fiber yarns

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities exclusive of "Chemical fibers" listed under Industry Number 1112 and "Carbon fibers" listed under Industry Number 1113, as specified in "SILK REELING, SPINNING, CHEMICAL FIBERS AND TWISTING AND BULKY YARNS" listed under Group Number 111 of the Japan Standard Industrial Classification.

(Given examples)

Natural fibers (silk, by-product silk), cotton yarns (cotton fiber, mixed cotton fiber), chemical fibers (viscose staple, cupra staple, acetate, vinylon, nylon, acrylic, polyester, polypropylene), wool yarns (raw wool fiber, spun wool yarns), twisted yarn, bulk processed fibers, other fibers (silk, saku, noil silk yarn, hemp, wa-fiber, etc.)

Column Code	Row Code	Sector Name
1512-01	1512-011	Cotton and staple fiber fabrics (including fabrics of synthetic spun fibers)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "Woven cotton and staple fiber fabrics" listed under Industry Number 1121 of the Japan Standard Industrial Classification.

(Given examples)

Cotton fabrics, viscose staple fiber fabrics, chemical fiber fabrics, cotton, staple fiber, and synthetic fiber textile

(Notes)

(1) Fabrics of 13.0 cm or less width shall be classified as narrow width fabrics in the sector "1519-09, -009 Miscellaneous fabrics." (This criteria applies throughout the textile products sector.)

(2) The production value includes those products commissioned from non-manufacturing businesses. (This applies throughout the textile products sector.)

Column Code	Row Code	Sector Name
1512-02	1512-021	Silk and artificial silk fabrics (including fabrics of synthetic filament fibers)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "Woven silk and rayon fabrics" listed under Industry Number 1122 of the Japan Standard Industrial Classification.

(Given examples)

Silk textiles, silk fabrics, artificial silk fabrics, synthetic long filament fiber fabrics, chemical fiber tire cord

(Notes)

(1) Fabrics of 13.0 cm or less width shall be classified as narrow width fabrics in the sector "1519-09, -009 Miscellaneous fabrics." (This criteria applies throughout the textile products sector.)

(2) The production value includes those products commissioned from non-manufacturing businesses. (This applies throughout the textile products sector.)

Column Code	Row Code	Sector Name
1512-09	1512-099	Miscellaneous fabrics

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "Woven woolen and worsted fabrics" listed under Industry Number 1123, "Woven hard and bast fiber fabrics" listed under Industry Number 1124, "Narrow woven fabrics" listed under Industry Number 1125, and "Miscellaneous woven fabrics" listed under Industry Number 1129 of the Japan Standard Industrial Classification.

(Given examples)

Woven woolen and worsted fabric (worsted wool cloth, other worsted wool fiber fabrics, spun woolen cloth, other spun woolen fiber fabrics, other wool fiber fabrics), woven hard and best fiber fabrics (flax, ramie, jute, fiber hoses, woven synthetic fiber fabrics,) narrow-width fabrics, miscellaneous fabrics (moquette, etc.)

(Notes)

(1) Fabrics less than 13.0 cm in width are classified as narrow-width fabrics in this sector, regardless of what type of yarn they are made.

(2) The production value includes those products commissioned from non-manufacturing businesses.

(3) Narrow woven fabrics, which were classified under "1519-09, -009 Miscellaneous fabrics" in the 2005 I-O tables, are integrated into this sector

Column Code	Row Code	Sector Name
1513-01	1513-011	Knitting fabrics

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "KNIT FABRICS" listed under Group Number 113 of the Japan Standard Industrial Classification.

(Given examples)

Circular knitted textiles, knitted textiles (horizontal), knitted textiles (vertical)

Column Code	Row Code	Sector Name
1514-01	1514-011	Yarn and fabric dyeing and finishing (processing on commission only)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "DYED AND FINISHED TEXTILES" listed under Group Number 114 of the Japan Standard Industrial Classification.

(Notes)

The production value is split into the market value (raw materials purchase value) and the trade commission (supplied materials value). However, this sector is defined to cover only the production activities for dyeing and finishing that does not purchase the raw materials, and the raw materials purchase value is deducted from the market value.

Column Code	Row Code	Sector Name
1519-09		Miscellaneous fabricated textile products
	1519-091	Ropes and nets
	1519-099	Fabricated textiles products, n.e.c.

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "ROPE, NETTING, LACE AND CRUDE TEXTILE PRODUCTS" listed under Group Number 115 of the Japan Standard Industrial Classification.

(Given examples)

Ropes and nets: Ropes, cordage, twine, fishing net, net cloth other than fishing net

Fabricated textiles products, n.e.c.: Lace fabrics, miscellaneous textile goods, braids, scoured and combined wool (scoured wool fabrics, tops, reclaimed wool fabrics), felt, non-woven fabrics, dry laid non-woven fabrics, coated fabrics, water-proof fabrics, miscellaneous crude textile goods (futon cotton, lily yarns, laces, tassels, etc.)

Column Code	Row Code	Sector Name
1521-01	1521-011	Woven fabric apparel

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Men's and boys' textile outer garments, including bonded fabrics and lace products" listed under Industry Number 1161, "Ladies' and girls' textile outer garments, including bonded fabrics and lace products" listed under Industry Number 1162, "Infants' textile outer garments, including bonded fabrics and lace products" listed under Industry Number 1163, "Textile shirts, including bonded fabrics and lace products, except underwear" listed under Industry Number 1164, "Textile business, work, sanitary, sport clothing and school uniforms, including bonded fabrics and lace products" listed under Industry Number 1165, "Textile underwear" listed under Industry Number 1171, textile products as specified in "Textile and knitted nightclothes" listed under Industry Number 1173, and "Japanese style apparel, including Japanese 'tabi'-socks" listed under Industry Number 1181 of the Japan Standard Industrial Classification. Also includes activities related to manufacturing within clothing manufacture and retail.

(Given examples)

Men's and boys' clothing, women's and girls' clothing, infants' clothing, shirts, business, work and sanitary clothing, sports clothing, school uniforms, underwear, nightwear, kimono products (readymade Japanese kimono, obi, shawls, tabi, etc.)

(Notes)

(1) The production value includes those products outsourced production commissioned from non-manufacturers.

(2) Tabi socks, which were classified under "1522-09, -099 Miscellaneous wearing apparel and clothing accessories" in the 2005 I-O Tables, were integrated into this sector in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
1521-02	1521-021	Knitted apparel

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Knitted garments, except outer shirts and sweater" listed under Industry Number 1166, "Knitted outer shirts" listed under Industry Number 1167, "Sweaters" listed under Industry Number 1168, "Miscellaneous garments and shirts" listed under Industry Number 1169, "Knitted underwear" listed under Industry Number 1172, knitted goods specified in "Textile and knitted nightclothes" listed under Industry Number 1173, and "Foundation garments" listed under Industry Number 1174 of the Japan Standard Industrial Classification.

(Given examples)

Outer shirts, sweaters, other garments and shirts (men's and boys' clothing, women's and girls' clothing, infants' clothing, sport clothing, swimming wear, etc.), underwear, nightwear, foundation garments

(Notes)

The production value includes outsourced production commissioned from non-manufacturers

Column Code	Row Code	Sector Name
1522-09	1522-099	Miscellaneous wearing apparel and clothing accessories

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "Ties" listed under Industry Number 1182, "Scarfs, mufflers and handkerchiefs" listed under Industry Number 1183, "Hosiery" listed under Industry Number 1184, "Gloves" listed under Industry Number 1185, "Hats, including hat bodies" listed under Industry Number 1186, and "Textile apparel and accessories, n.e.c." listed under Industry Number 1189 of the Japan Standard Industrial Classification.

(Given examples)

Neck-ties, scarves, mufflers, handkerchiefs, socks, gloves, hats, fur apparel, apparel accessories and notions, leather apparel, fabric footwear

Column Code	Row Code	Sector Name
1529-01	1529-011	Bedding

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Bedding" listed under Industry Number 1191 and "Blankets" listed under Industry Number 1192 of the Japan Standard Industrial Classification.

(Given examples)

Futons, down futons, other bedding (futon covers, sheets, cotton blankets, pillows, cushions, sleeping bags, etc.), blankets

Column Code	Row Code	Sector Name
1529-02	1529-021	Carpets and floor mats

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Carpets and other textile mats" listed under Industry Number 1193 of the Japan Standard Industrial Classification.

(Given examples)

Carpets, rugs, turf carpet, palm-leaf flooring, floor padding and fabricated flooring textile

Column Code	Row Code	Sector Name
1529-09		Miscellaneous ready-made textile products
	1529-091	Fabricated textiles for medical use
	1529-099	Readymade textile products, n.e.c.

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Canvas products" listed under Industry Number 1194, "Textile bags" listed under Industry Number 1195, "Embroidery" listed under Industry Number 1196, "Towels" listed under Industry Number 1197, "Textile sanitary materials" listed under Industry Number 1198, and "Textile products, n.e.c." listed under Industry Number 1199 of the Japan Standard Industrial Classification.

(Given examples)

Fabricated textiles for medical use: Gauze, bandages, absorbent cotton, sticking plasters/adhesive bandages (fabric), sanitary masks, triangular bandages, eye bandages, cotton swabs

Readymade textile products, n.e.c.: Canvas products (sheets,

tents, and awnings), fabricated bags (hemp sack, cotton sack, and synthetic fiber sack), embroidery products, towels, curtains, tablecloths

16 Pulp, paper and wooden products

Column Code	Row Code	Sector Name
1611-01	1611-011	Timber

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of “General sawing and planing wood” listed under Industry Number 1211 of the Japan Standard Industrial Classification.

Scrap and by-products (wood chips), which appeared in other sectors, consider this sector as a competitor.

(Given examples)

Boards, small square , sawn square woods , scrap

Column Code	Row Code	Sector Name
1611-02	1611-021	Plywood, glued laminated timber

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for “Veneer wood” listed under Industry Number 1212; “Plywood” listed under Industry Number 1222; and “Glued laminated timber” listed under Industry Number 1223 of the Japan Standard Industrial Classification.

(Given examples)

Single board, general plywood, special plywood, laminboards

(Changes from the 2011 I-O Tables)

Floorings classified under this sector in the 2011 I-O Tables are integrated into column sector “1619-09 Miscellaneous wooden products” and row sector “1619-091 Wooden products for construction.”

Column Code	Row Code	Sector Name
1611-03	1611-031	Wooden chips

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities of “Wood chip” listed under Industry Number 1213 of the Japan Standard Industrial Classification.

Column Code	Row Code	Sector Name
1619-09		Miscellaneous wooden products
	1619-091	Wooden products for construction
	1619-099	Wooden products, n.e.c.

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "Miscellaneous sawing and planning wood" listed under Industry Number 1219, "Millwork, except lumber for fixtures" listed under Industry Number 1221, "Prefabricated wooden buildings and structural members" listed under Industry Number 1224, "Particle board" listed under Industry Number 1225, "Fiber board" listed under Industry Number 1226, "High-grade decorative boards and wood" listed under Industry Number 1227, "Flooring wood" listed under Industry Number 1228, "WOODEN, BAMBOO AND RATTAN CONTAINERS" listed under Group Number 123, and "MISCELLANEOUS MANUFACTURE OF WOOD PRODUCTS, INCLUDING BAMBOO AND RATTAN" listed under Group Number 129 of the Japan Standard Industrial Classification.

(Given examples)

Wooden products for construction: Fittings, pre-fabricated wooden parts, particle board, Fiberboard, name plates, main pillars, stage pillars, floorings

Wooden products, n.e.c.: Thin-sliced wooden pieces, barrels, tubs, bamboo, cane and "kiryu" containers, folding boxes, wooden boxes, frames, roll frames, barrels, tubs, chemically treated wood, cork products, chopsticks, geta (Japanese wooden sandals), bamboo steamers, lasts, other wooden, bamboo, cane, and "kiryu" products.

(Changes from the 2011 I-O Tables)

Following the revision of the Japan Standard Industrial Classification, floorings classified under "1611-02, -021 Plywood, glued laminated timber" in the 2011 I-O Tables are integrated into "1619-091 Wooden products for construction."

(Notes)

Following the revision of the Japan Standard Industrial Classification, fiberboard classified under "1829-09, -099 Other pulp, paper and processed paper products" in the 2005 I-O Tables was integrated into "1619-091 Wooden products for construction" in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
1621-01	1621-011	Wooden furniture

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "Wooden furniture, except japanned" listed under Industry Number 1311 of the Japan Standard Industrial Classification; also includes production-related activities of manufacturing and retailing businesses

(Given examples)

Desks, tables, chairs, sinks, cooking tables, dresser drawers, shelves, cupboards, cabinets for audio-visual equipment, wooden furniture like beds

(Notes)

To ensure consistency with the Japan Standard Industrial Classification, "1711-01, -011 Wooden furniture and fixtures" in the 2005 I-O Tables was changed to "1621-01, -011 Wooden furniture" in the 2011 I-O Tables; fixtures and some non-wooden furniture (stone and clay, plastic, glass, pottery, etc.) classified under this sector in the 2005 I-O Tables were included in "1621-09, 099 Miscellaneous furniture and fixtures" in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
1621-02	1621-021	Metallic furniture

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "Metal furniture" listed under Industry Number 1312 of the Japan Standard Industrial Classification.

(Given examples)

Desks, tables, chairs, beds, sinks, cooking ranges, gas ovens, shelves, metal furniture like cupboards

(Notes)

To ensure consistency with the Japan Standard Industrial Classification, "1711-03, -031 Metallic furniture and fixtures" in the 2005 I-O Tables was changed to "1621-02, -021 Metallic furniture" in the 2011 I-O Tables; fixtures classified under this sector were included in "1621-09, 099 Miscellaneous furniture and fixtures" in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
1621-03	1621-031	Wooden fixtures

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “FIXTURES” as listed under Group Number 133 of the Japan Standard Industrial Classification; also includes production-related activities of manufacturing and retailing businesses

(Given examples)

Window screens (wooden sliding doors and windows), paper sliding doors, paper screens

Column Code	Row Code	Sector Name
1621-09	1621-099	Miscellaneous furniture and fixtures

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of “Mattresses and box springs” listed under Industry Number 1313, “FURNITURE FOR RELIGIOUS PURPOSES” listed under Group Number 132, and “MISCELLANEOUS FURNITURE AND FIXTURES” listed under Group Number 139 of the Japan Standard Industrial Classification; also includes production-related activities of manufacturing and retailing businesses

(Given examples)

Bed mattresses, box springs, religious articles, office and store fixtures (showcases, accordion style curtains), windows and door screens (blinds, etc.), Japanese folding screens, clothes racks, bamboo screens, screens, frames for mirrors and pictures, blackboards, plastic furniture, pottery furniture, stone and clay furniture

(Notes)

To ensure consistency with the Japan Standard Industrial Classification, this sector was established for the 2011 I-O Tables to hold “Mattresses and box springs” listed under Industry Number 1313, “FURNITURE FOR RELIGIOUS PURPOSES” listed under Group Number 132, and “MISCELLANEOUS FURNITURE AND FIXTURES” listed under Group Number 139 of the Japan Standard Industrial Classification, which had been classified under “1711-01, -011 Wooden furniture and fixtures” and “1711-03, -031 Metallic furniture and fixture” in the 2005 I-O Tables.

Column Code	Row Code	Sector Name
1631-01	1631-011	Pulp

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “PULP” listed under Group Number 141 of the Japan Standard Industrial Classification.

(Given examples)

Dissolved pulp, processing pulp

Column Code	Row Code	Sector Name
	1631-021P	Used paper

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

This sector is a competing sector for waste paper generated by the production activities of various sectors, as well as in the final demand sector.

(Notes)

There is no competing sector that yields waste paper as its major product; therefore, a dummy sector showing the row number is created.

Column Code	Row Code	Sector Name
1632-01	1632-011	Paper

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

Production of “Paper” listed under Industry Number 1421, “Machine-made Japanese style paper” listed under Industry Number 1423, and “Hand-made Japanese style paper” listed under Industry Number 1424 of the Japan Standard Industrial Classification, and production of washi (Japanese paper) used in currency printed by the National Printing Bureau.

(Given examples)

Paper for newspaper, printing paper, information paper, packaging paper, sanitary paper, other paper, hand-made Japanese paper, Japanese washi for bill on banknote

(Notes)

The sanitary paper included in this sector refers to crude paper; products such as tissue paper and toilet paper are included in “1649-01, -011 Paper textile for medical use”

Column Code	Row Code	Sector Name
1632-02	1632-021	Paperboard

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Paperboard" listed under Industry Number 1422 of the Japan Standard Industrial Classification.

(Given examples)

Corrugated paper, white paper, colored paper, paper for construction use, other flat paper

Column Code	Row Code	Sector Name
1633-01	1633-011	Corrugated cardboard

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Corrugated board" listed under Industry Number 1432 of the Japan Standard Industrial Classification.

(Given examples)

Corrugated cardboard (sheet)

Column Code	Row Code	Sector Name
1633-02	1633-021	Coated paper and building (construction) paper

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Coated paper, except printing paper" listed under Industry Number 1431, and "Wall paper and sliding door ("fusuma") paper" listed under Industry Number 1433 of the Japan Standard Industrial Classification.

(Given examples)

Insulating paper, insulating tape, asphalt-based coated paper, book binding cloth, other coated paper, processed paper, wall paper, fusuma (paper wall) paper

Column Code	Row Code	Sector Name
1641-01	1641-011	Corrugated card board boxes

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Corrugated board boxes" listed under Industry Number 1453 of the Japan Standard Industrial Classification.

Column Code	Row Code	Sector Name
1641-09	1641-099	Miscellaneous paper containers

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Sacks for heavy weight shipping" listed under Industry Number 1451, "Square bottom paper bags" listed under Industry Number 1452, and "Paperboard boxes, cups and plates" listed under Industry Number 1454 of the Japan Standard Industrial Classification.

(Given examples)

Packaging sacks for use with heavy items (cement sacks, rice and wheat sacks, etc.), paper sacks with rectangular bottoms (shopping bags, paper carrying bags, etc.), paper boxes (folded paper boxes, wire-stitched boxes, boxes made of paper and glue, etc.), and other paper containers (tubes, cups, plates, etc.)

Column Code	Row Code	Sector Name
1649-01	1649-011	Paper textile for medical use

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for paper textile materials and products for medical use as specified in "MISCELLANEOUS PULP, PAPER AND PAPER PRODUCTS" listed under Group Number 149 of the Japan Standard Industrial Classification.

(Given examples)

Paper sanitary materials (sanitary paper and cotton, sanitary cotton pulp, etc.), paper sanitary products (diapers, towels, napkins, sanitary supplies, tissue paper, toilet paper, etc.)

(Notes)

Base paper for tissue and toilet paper production is included in "1632-01, -011 Paper."

Column Code	Row Code	Sector Name
1649-09	1649-099	Miscellaneous pulp, paper and processed paper products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "PAPER PRODUCTS" listed

under Group Number 144, and “MISCELLANEOUS PULP, PAPER AND PAPER PRODUCTS” excluding production activities for sanitary paper materials and products listed under Group Number 149 of the Japan Standard Industrial Classification.

(Given examples)

Paper and fabric book-binding cloth, office paper supplies, paper supplies for schools, paper supplies for home use, cellophane, paper tubes, paper string, paper tape, solid fiber products and vulcanized fiber products

(Notes)

Fiberboard, which was classified under this sector in the 2005 I-O Tables, was integrated into column sector “1619-09 Miscellaneous wooden products” and the row sector “1619-091 Wooden products for construction.”

20 Chemical products

Column Code	Row Code	Sector Name
2011-01	2011-011	Chemical fertilizer

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Nitrogenous and phosphatic fertilizers” excluding nitric acid, sodium nitrate, and sodium nitrite listed under Industry Number 1611, “Compound fertilizers” listed under Industry Number 1612, “Miscellaneous chemical fertilizers” listed under Industry Number 1619, and production activities for ammonium chloride as specified in “Soda” listed under Industry Number 1621 of the Japan Standard Industrial Classification; scrap and by-products (ammonium sulfate and calcium silicate), which appeared in other sectors, consider this sector as a competitor.

(Given examples)

Nitrogenous and phosphatic fertilizers (Ammonia, ammonia water, urea, ammonium nitrate, lime nitrogen, calcium over-phosphate, fused phosphate, polycalcium phosphate, heavy phosphorous), Compound fertilizer (ammonium phosphate (fertilizer use), high-grade chemical fertilizer, standard-grade chemical fertilizer, blended fertilizer)

Column Code	Row Code	Sector Name
2021-01		Industrial soda chemicals
	2021-011	Soda ash
	2021-012	Caustic soda
	2021-013	Liquid chlorine
	2021-019	Miscellaneous industrial soda chemicals

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Soda” excluding those of ammonium chloride listed under Industry Number 1621 of the Japan Standard Industrial Classification.

(Given examples)

Miscellaneous industrial soda chemicals: Chlorine gas, gaseous hydrochloric acid, oxygen chloride bleaching powder, chlorinated lime solvent, sodium chlorate

Column Code	Row Code	Sector Name
2029-01		Inorganic pigment
	2029-011	Titanium oxide
	2029-012	Carbon black
	2029-019	Miscellaneous inorganic pigments

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Inorganic pigments" listed under Industry Number 1622 of the Japan Standard Industrial Classification.

(Given examples)

Miscellaneous inorganic pigments: Zinc oxide, ferric oxide, chrome yellow, minium, lead oxide, cadminium pigment, ginshu lacquer

Column Code	Row Code	Sector Name
2029-02	2029-021	Compressed gas and liquefied gas

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Compressed and liquefied gases" listed under Industry Number 1623 of the Japan Standard Industrial Classification.

(Given examples)

Oxygen, nitrogen, argon, hydrogen, acetylene, carbon dioxide

Column Code	Row Code	Sector Name
2029-03		Salt
	2029-031	Crude salt
	2029-032	Salt

(Ministry or agency in charge)

Ministry of Finance

(Definition, Scope)

The production activities for "Salt" listed under Industry Number 1624 of the Japan Standard Industrial Classification.

(Given examples)

Salt, table salt, sea water, bittern

(Notes)

Rock salt is classified under column sector "0629-09 Miscellaneous ores" and row sector "0629-099 Ores, n.e.c."

Column Code	Row Code	Sector Name
2029-09	2029-099	Miscellaneous industrial inorganic chemicals

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Nitrogenous and phosphatic fertilizers" listed under Industry Number 1611, excluding nitric acid, sodium nitrate, and sodium nitrite, and also the activities of "Miscellaneous industrial inorganic chemical products" listed under Industry Number 1629, excluding catalysts, of the Japan Standard Industrial Classification.

(Given examples)

Sulphuric acid salt, sulfide, fluoride, phosphorite, potassium, barium, activated charcoal

Column Code	Row Code	Sector Name
2031-01		Petrochemical basic products
	2031-011	Ethylene
	2031-012	Propylene
	2031-019	Miscellaneous petrochemical basic products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for primary products created by the dissolution of naphtha such as ethylene, propylene, butane, butylene, butadiene, paraffin, dissolved gasoline, and top gas as specified in "Basic petrochemicals, including derivatives produced from an integrated process" listed under Industry Number 1631 of the Japan Standard Industrial Classification.

Column Code	Row Code	Sector Name
2031-02		Petrochemical aromatic products (except synthetic resin)
	2031-021	Pure benzene
	2031-022	Pure toluene
	2031-023	Xylene
	2031-029	Miscellaneous petrochemical aromatic products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for aromatic solvent, and products

created by reformate and dissolved gasoline, such as pure benzene, pure toluene, and xylene (refined o-xylene, m-xylene, and refined p-xylene) specified in "Basic petrochemicals, including derivatives produced from a process production" listed under Industry Number 1631 of the Japan Standard Industrial Classification.

Column Code	Row Code	Sector Name
2041-01		Aliphatic intermediates
	2041-011	Synthetic octanol and synthetic butanol
	2041-012	Acetic acid
	2041-013	Ethylene dichloride
	2041-014	Acrylonitrile
	2041-015	Ethylene glycol
	2041-016	Acetic acid vinyl monomer
	2041-019	Miscellaneous aliphatic intermediates

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Aliphatic intermediates, including aliphatic solvent" listed under Industry Number 1632 of the Japan Standard Industrial Classification; products in this sector are derivatives of olefin such as ethylene, propylene, and butylene

(Given examples)

Other aliphatic intermediates: Isopropyl alcohol, ethylene oxide, vinyl chloride (monomer)

(Changes from the 2011 I-O Tables)

Ethyl alcohol (petroleum), high-grade synthetic alcohol (C9 or higher), and isopropyl alcohol classified under "2041-011 Synthetic alcohol" in the 2011 I-O Tables are integrated into "2041-019 Miscellaneous aliphatic intermediates" .

Column Code	Row Code	Sector Name
2041-02		Cyclic intermediates, synthetic dyes and organic pigments
	2041-021	Synthetic dyes and organic pigments
	2041-022	Styrene monomer
	2041-023	Synthetic phenol
	2041-024	Terephthalic acid and dimethyl terephthalate
	2041-025	Caprolactam
	2041-029	Miscellaneous cyclic intermediates

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Cyclic intermediates, synthetic dyes and organic pigments" listed under Industry Number 1634 of the Japan Standard Industrial Classification

(Given examples)

Miscellaneous cyclic intermediates: Phthalic anhydride, tolylenediisocyanate, diphenyl methane diisocyanate, cyclohexane, aniline, nitrobenzene/chlorobenzene

(Changes from the 2011 I-O Tables)

"2041-02 Cyclic intermediates" and "2041-03 Synthetic dyes and organic pigments" in the 2011 I-O Tables are integrated into "2041-02 Cyclic intermediates, synthetic dyes and organic pigments."

(Notes)

(1) Azo pigment, which was classified under "2039-09, -099 Other industrial organic chemicals" in the 2005 I-O Tables, was integrated into this sector in the 2011 I-O Tables.

(2) The codes "2032-02, -021, -022, -023, -024 and -029" in the 2005 I-O Tables were changed to "2041-02, -021, -022,-023, -024 and -029" in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
2042-01	2042-011	Synthetic rubber

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Synthetic rubber" listed under Industry Number 1636 of the Japan Standard Industrial Classification.

Column Code	Row Code	Sector Name
2049-01	2049-011	Methane derivatives

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for methane derivatives as specified in "Miscellaneous industrial organic chemical products" listed under Industry Number 1639 of the Japan Standard Industrial Classification.

(Given examples)

Refined methanol, formalin, methyl chloride, CFC gases

Column Code	Row Code	Sector Name
2049-02	2049-021	Plasticizers

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for plasticizers specified in "Miscellaneous industrial organic chemical products" listed under Industry Number 1639 of the Japan Standard Industrial Classification

(Given examples)

Phthalate plasticizers, fatty acid plasticizers, phosphate plasticizers, adipate plasticizers, polyester plasticizers, epoxy plasticizers

Column Code	Row Code	Sector Name
2049-09	2049-099	Miscellaneous industrial organic chemicals

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

Production of "Fermentation chemical products" listed under Industry Number 1633 and "Miscellaneous industrial organic chemical products," excluding plasticizers and methane derivatives, listed under Industry Number 1639 of the Japan Standard Industrial Classification, including production activities of the Japan Alcohol Corporation.

(Given examples)

Pure benzene (non-petroleum), creosote oil, pitch, naphthalene, ethyl alcohol, lake, rubber accelerator, rubber antioxidant, high-grade alcohol (fatty products)

(Changes from the 2011 I-O Tables)

Azo pigment, which is classified under this sector in the 2005 I-O Tables, are integrated into "2041-03, -031 Synthetic dyes and organic pigments."

Column Code	Row Code	Sector Name
2051-01	2051-011	Thermosetting resins

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for phenol resin, urea resin, melamine resin, unsaturated polyester resin, alkyd resin, epoxy resin, and silica resin as specified in "Plastics" listed under Industry Number 1635 of the Japan Standard Industrial Classification.

Column Code	Row Code	Sector Name
2051-02		Thermoplastics resins
	2051-021	Polyethylene (low density)
	2051-022	Polyethylene (high density)
	2051-023	Polystyrene
	2051-024	Polypropylene
	2051-025	Vinyl chloride resins

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for polyethylene, polystyrene, polypropylene, and vinyl chloride resin as specified in "Plastics" listed under Industry Number 1635 of the Japan Standard Industrial Classification.

(Notes)

EVA (Ethylene-vinyl acetate copolymers) is included in "2051-021 Polyethylene (low density)."

Column Code	Row Code	Sector Name
2051-03	2051-031	High function resins

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for polyamide resin, polycarbonate, polyacetal, polyethylene terephthalate (excl. fiber use), polybutylene terephthalate, and polyphenylene sulfide specified in "Plastics" listed under Industry Number 1635 of the Japan Standard Industrial Classification.

(Given examples)

Polyamide resin, polycarbonate, polyacetal, polyethylene terephthalate (excluding fiber use), polybutylene terephthalate, polyphenylene sulfide

(Changes from the 2011 I-O Tables)

(1) Polyphenylene sulfide classified under "2051-09, -099 Miscellaneous synthetic resins" in the 2011 I-O Tables is integrated into this sector.

(2) Modified polyphenylene ether classified under this sector in the 2011 I-O Tables is integrated into "2051-09, -099 Miscellaneous synthetic resins."

(Notes)

Polyethylene terephthalate (for fiber use) is included in "2051-09, -099 Miscellaneous synthetic resins"

Column Code	Row Code	Sector Name
2051-09	2051-099	Miscellaneous synthetic resins

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of synthetic resins that are not elsewhere classified such as petroleum resin, methacrylic resin, polyvinyl alcohol, vinylidene chloride resin, fluorine resin, acetyl cellulose, and polyethylene terephthalate (fiber use) specified in "Plastics" listed under Industry Number 1635 of the Japan Standard Industrial Classification.

(Given examples)

Petroleum resin (polybutene, petroleum resin), methacrylic resin (formed materials, plate materials), polyvinyl alcohol, vinylidene chloride resin, fluorocarbon resin, polyethylene terephthalate (fiber use), miscellaneous resins

(Changes from the 2011 I-O Tables)

(1) Modified polyphenylene ether classified under "2051-03, -031 High function resins" in the 2011 I-O Tables is integrated into this sector.

(2) Polyphenylene sulfide classified under this sector in the 2011 I-O Tables is integrated into "2051-03, -031 High function resins."

Column Code	Row Code	Sector Name
2061-01		Chemical fibers
	2061-011	Rayon and acetate
	2061-012	Synthetic fibers

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for synthetic fibers specified in "Chemical fibers" listed under Industry Number 1112 of the Japan Standard Industrial Classification.

(Given examples)

Rayon and acetate: Viscose fiber, cupra fiber, and acetate fiber
Synthetic fibers: Nylon fiber, polyester fiber, acrylic fiber, vinylnylon fiber, and polypropylene fiber

(Changes from the 2011 I-O Tables)

"2061-01 Rayon and acetate" and "2061-02 Synthetic fibers" in the 2011 I-O Tables are integrated into "2061-01 Chemical fibers."

Column Code	Row Code	Sector Name
2071-01	2071-011	Medicaments

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The production activities for "MEDICINES" listed under Group Number 165 of the Japan Standard Industrial Classification.

(Given examples)

Ethical pharmaceuticals (cardiovascular use, antibiotic use), consumer products (cold remedies, analgesic agents, deodorants, repellents, pesticides, disinfectants, ointments, vitamin tablets, calcium tablets), veterinary medicines, consumer medicine

(Notes)

Cosmetics, toilet preparations and dentifrices are classified under "2081-01, -011 Cosmetics, toilet preparations and dentifrice" and agricultural chemicals are classified under "2084-01, -011 Agricultural chemicals."

Column Code	Row Code	Sector Name
2081-01		Oil and fat products and surface-active agents
	2081-011	Oil and fat products
	2081-012	Soap and synthetic detergents
	2081-013	Surface-active agents (except soap or synthetic detergents)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities exclusive of hardened oils (edible oils) specified under "Fatty acids, hydrogenated oils and glycerin" listed under Industry Number 1641, and production activities for "Soaps and synthetic detergents" listed under Industry Number 1642 and "Surface-active agents, except soaps and synthetic detergent" listed under Industry Number 1643 of the Japan Standard Industrial Classification.

(Given examples)

Oil and fat industrial chemicals: Pure benzene (non-petroleum), creosote oil, pitch, naphthalene, ethyl alcohol, lake, rubber accelerator, rubber antioxidant, high-grade alcohol (fatty products)

Surface-active agents (except soap and synthetic detergents): Anionic surfactants, cation surfactants, ionic surfactants, nonionic surfactants, softener agents

Column Code	Row Code	Sector Name
2082-01	2082-011	Cosmetics, toilet preparations and dentifrices

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "TOILETRIES, TOOTHPASTE AND TOILET PREPARATIONS" listed under Group Number 166 of the Japan Standard Industrial Classification

(Given examples)

Perfumes, colognes, hair treatments (shampoos, rinses, tonics, conditioners), skin-care products (creams, moisturizers, lotions, masques), cosmetics (foundation, powders, lipsticks, facial coloring, eye make-up), special cosmetics (sunscreens, after-shave lotions), toothpaste

Column Code	Row Code	Sector Name
2083-01	2083-011	Paint and varnishes

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Paints" listed under Industry Number 1644 of the Japan Standard Industrial Classification.

(Given examples)

Oil paints, lacquers, insulating paints, synthetic resin paints, thinners

Column Code	Row Code	Sector Name
2083-02	2083-021	Printing ink

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Printing ink" listed under Industry Number 1645 of the Japan Standard Industrial Classification.

(Given examples)

Ink for general purposes, newspaper printing inks, additives, varnishes for printing ink

Column Code	Row Code	Sector Name
2084-01	2084-011	Agricultural chemicals

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "Agricultural chemicals" listed under Industry Number 1692 of the Japan Standard Industrial Classification.

(Given examples)

Insecticides, sterilizers, herbicides, pesticides, plant nutrition, additives

(Notes)

Production activities for insecticides and pesticides (excluding agrichemicals) and production activities for sterilizers and disinfectants are classified under "2071-01, -011 Medicaments"

Column Code	Row Code	Sector Name
2089-01	2089-011	Gelatin and adhesives

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Gelatin and adhesives" listed under Industry Number 1694 of the Japan Standard Industrial Classification.

Column Code	Row Code	Sector Name
2089-02	2089-021	Photographic sensitive materials

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Photosensitive materials" listed under Industry Number 1695 of the Japan Standard Industrial Classification.

(Given examples)

Films, photographic papers, photosensitive papers, sensitive materials for photoengraving, chemical agents for photography

Column Code	Row Code	Sector Name
2089-09		Miscellaneous final chemical products
	2089-091	Catalyzer
	2089-099	Final chemical products, n.e.c.

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for catalysts as specified in "Miscellaneous industrial inorganic chemical products" listed under Industry Number 1629, "Cleaning and scouring preparations"

listed under Industry Number 1646, “Candles” listed under Industry Number 1647, “Explosives” listed under Industry Number 1691, “Perfumes and fragrances” listed under Industry Number 1693, “Natural resin and wood chemical products” listed under Industry Number 1696, “Reagents” listed under Industry Number 1697, and “Chemicals and allied products, n.e.c.” listed under Industry Number 1699 of the Japan Standard Industrial Classification.

(Given examples)

Final chemical products, n.e.c.: Cleaning and scouring preparations (cleansers, waxes, shoe creams, etc.), candles, explosives (smokeless powder, electric blasting caps, etc.), fragrances, natural resin products, wood chemical products, reagents, industrial chemical products, n.e.c. (dextrin including soluble starch, erasing fluids, bleaching agents, etc.)

21 Petroleum and coal products

Column Code	Row Code	Sector Name
2111-01		Petroleum refinery products (including greases)
	2111-011	Gasoline
	2111-012	Jet fuel oils
	2111-013	Kerosene
	2111-014	Light oils
	2111-015	Heavy oil A
	2111-016	Heavy oil B and C
	2111-017	Naphtha
	2111-018	LPG (liquefied petroleum gas)
	2111-019	Miscellaneous petroleum refinery products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities exclusive of briquettes and briquette balls as specified in “PETROLEUM REFINING” listed under Group Number 171, “LUBRICATING OILS AND GREASES (NOT MADE IN PETROLEUM REFINERIES)” listed under Group Number 172, and “Miscellaneous petroleum and coal products” listed under Group Number 1799 of the Japan Standard Industrial Classification.

A part of plastic scrap generated in the other sectors is considered to be a competitor of the sector “2111-017 Naphtha.”

Liquefied petroleum gas generated as a by-product in the sector “2031-01 Petrochemical basic products” is considered to be a competing section “2111-018 LPG (liquefied petroleum gas).”

(Given examples)

Miscellaneous petroleum refinery products : Grease, lube-oil, paraffin, asphalt, crude oil for refining and blending, petroleum gas, oil cokes

Column Code	Row Code	Sector Name
2121-01		Coal products
	2121-011	Coke
	2121-019	Miscellaneous coal products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “COKE” listed under Group Number 173 and “Miscellaneous petroleum and coal products” listed under Group Number 1799 of the Japan Standard Industrial Classification; the sector also includes coal tar generated in

the cooling process of coal gas, and crude benzol extracted directly from coal tar and coal gas.

A part of plastic scrap generated in the other sectors is considered to be a competitor of the sector “2121-011 Coke” and the sector “2121-019 Miscellaneous coal products”.

Blast furnace gas, basic oxygen furnace gas and electric furnace gas generated as a by-product in the other sectors are considered to be competing section “2121-019 Miscellaneous coal products”.

(Given examples)

Miscellaneous coal products: riquettes, briquette balls, crude benzol, coal tar, coke oven gas

Column Code	Row Code	Sector Name
2121-02	2121-021	Paving materials

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “PAVING MATERIALS” listed under Group Number 174 of the Japan Standard Industrial Classification.

(Given examples)

Mixed materials for asphalt paving, mixed materials for tar paving

22 Plastic products and rubber products

Column Code	Row Code	Sector Name
2211-01		Plastic products
	2211-011	Plastic films and sheets
	2211-012	Plastic plates, pipes and bars
	2211-013	Foamed plastic products
	2211-014	Industrial plastic products
	2211-015	Reinforced plastic products
	2211-016	Plastic containers
	2211-017	Plastic table ware, kitchen ware and miscellaneous household articles
	2211-019	Miscellaneous plastic products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “PLASTIC PLATES, BARS AND RODS, PIPES AND TUBES, PIPE FITTINGS AND PROFILE EXTRUSIONS” listed under Group Number 181, “PLASTIC FILMS, SHEETS, FLOOR COVERINGS AND SYNTHETIC LEATHER” listed under Group Number 182, “INDUSTRIAL PLASTIC PRODUCTS” listed under Group Number 183, “FOAMED AND REINFORCED PLASTIC PRODUCTS” listed under Group Number 184, “COMPOUNDING PLASTIC MATERIALS, INCLUDING RECLAIMED PLASTICS” listed under Group Number 185, and “MISCELLANEOUS PLASTIC PRODUCTS” listed under Group Number 189 of the Japan Standard Industrial Classification.

A part of plastic scrap generated in the other sectors is considered to be a competitor of the sector “2211-019 Miscellaneous plastic products”.

(Given examples)

Plastic films and sheets: Plastic film, plastic sheeting, plastic flooring, synthetic leather extrusion products

Plastic plates, pipes and bars: Plastic plates (flat , waveform, layered, laminated), bars, plastic pipes (hard tubes, hoses), plastic joints, plastic extrusion products (troughs, etc.), processed articles for plastic plates, bars, pipes, joints and plastic extrusion products

Foamed plastic products: Polyurethane foam, polyethylene foam, vinyl chloride foam, polystyrene foam, polystyrene paper, foam plate products, processed foam plastic products

Industrial plastic products: Plastic products for transportation equipment (bumpers, dashboards, hubcaps), plastic products for electrical appliances (television cabinets, cleaner

bodies, interior parts of refrigerators), other plastic products for industrial use, processed plastic products for industrial use

Reinforced plastic products: Reinforced plastic plates, bars, and joints, reinforced plastic containers, bathtubs and septic tanks, reinforced plastic industrial products, miscellaneous reinforced plastic products (reinforced hard hats (hat bodies), insulators, bridge piers, and containers, etc.), processed reinforced plastic products

Plastic containers: Plastic beverage bottles, plastic kerosene containers, containers for industrial chemicals, containers for detergents and shampoos, containers for beer bottles, containers for agricultural and fishery use, trash cans

Plastic table ware, kitchen ware and miscellaneous household articles: Plastic kitchenware and tableware (cutting boards, bowls, tableware, trays, etc.), plastic toiletries, miscellaneous plastic sundries

Miscellaneous plastic products: Plastic parts, waste plastic products (piles, shelves, fishing banks), plastic medical and sanitary products, miscellaneous plastic products (binding tapes, insulating tapes, watch covers, waterproofing, artificial turf, etc.), processed plastic articles, n.e.c.

(Notes)

Foamed plastic products classified as "foamed and reinforced plastic products" in "2211-015 Reinforced plastic products" in the 2005 I-O Tables was removed from this sector and integrated into "2211-013 Foamed plastic products" in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
2221-01	2221-011	Tires and inner tubes

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "TIRES AND INNER TUBES" listed under Group Number 191 and "Retreaded tires" listed under Industry Number 1994 of the Japan Standard Industrial Classification.

(Given examples)

Automobile tires and tubes, aircraft tires and tubes, bicycle tires and tubes, tractors tires and tubes, solid tires, re-treaded tires

Column Code	Row Code	Sector Name
2229-09		Miscellaneous rubber products
	2229-091	Rubber and plastic footwear
	2229-099	Rubber products, n.e.c.

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

Production of "RUBBER AND PLASTIC FOOTWEAR AND ITS FINDINGS" listed under Group Number 192; "RUBBER BELTS AND HOSES, MECHANICAL AND INDUSTRIAL RUBBER PRODUCTS" listed under Group Number 193; "Rubber coated fabric and its products" listed under Industry Number 1991; "Medical and sanitary rubber products" listed under Industry Number 1992; "Rubber sheet (repairsheet)" listed under Industry Number 1993; "Reclaimed rubber" listed under Industry Number 1995; and "Rubber products, n.e.c." listed under Industry Number 1999 of the Japan Standard Industrial Classification.

(Given examples)

Rubber and plastic footwear: Rubber footwear and its findings (Rubber-soled canvas boots, rubber-soled shoes, rubber boots, rubber zori slippers, slippers (including sponge-soled), related rubber supplies (rubber soles, rubber heels, zori slipper soles, uppers)), plastic footwear and its findings (Plastic shoes (synthetic leather shoes, plastic formed shoes), plastic sandals, slippers and zori slippers, plastic athletic shoes, plastic shoe accessories)

Rubber products, n.e.c.: Conveyor belts, flat belts, v-shape belts (including fan belts), rubber hoses, industrial rubber products (vibration proof rubber, rubber packing), rubber coated sheets, rubber coated sheet products (air mattress), medical and sanitary rubber products, (nursing-bottle heads, water pillows, ice bags, surgical gloves, rubber), rubber for retreading, recycled rubber other rubber products (foam rubber and rubber gloves but excluding those for surgical use, rubber abrasives, rubber bands)

(Changes from the 2011 I-O Tables)

"2229-01 Rubber and plastic footwear" and "2229-09 Miscellaneous rubber products" in the 2011 I-O Tables are integrated into "2229-09 Miscellaneous rubber products."

(Notes)

"2319-01, -011 Rubber footwear" and "2319-02, -021 Plastic footwear" in the 2005 I-O Tables were integrated into "2229-01, -011 Rubber and plastic footwear" in the 2011 I-O Tables.

25 Ceramic, stone and clay products

Column Code	Row Code	Sector Name
2511-01		Sheet glass and safety glass
	2511-011	Sheet glass
	2511-012	Safety glass and multilayered glass

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Flat glass" listed under Industry Number 2111, and "Processed flat glass" listed under Industry Number 2112 of the Japan Standard Industrial Classification.

(Given examples)

Sheet glass: Regular flat glass, laminated flat glass, polished flat glass

Safety glass and multilayered glass: Laminated glass, reinforced glass, multilayered glass, ground glass, bent glass, mirrors

Column Code	Row Code	Sector Name
2511-02	2511-021	Glass fiber and glass fiber products, n.e.c.

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Glass fiber and its products" listed under Industry Number 2117 of the Japan Standard Industrial Classification.

(Given examples)

Short glass fiber products (felt, board, tube, etc.), long glass fiber products (roving, chopped strand, thread, cloth, matting, etc.), optical fiber (strand)

Column Code	Row Code	Sector Name
2511-09		Miscellaneous glass products
	2511-091	Glass processing materials
	2511-099	Glass products, n.e.c.

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Glass processing materials" listed under Industry Number 2113, "Glass containers" listed under Industry Number 2114, "Scientific and medical glass instruments" listed under Industry Number 2115, "Table and kitchen glassware" listed under Industry Number 2116, and "Miscellaneous glass and its products" listed under Industry Number 2119 of the Japan Standard Industrial Classification; scrap and by-products (glass bottles) generated in other sectors are considered to be in competition to "2511-099 Glass products, n.e.c."

(Given examples)

Glass processing materials: Glass base for optical use (including eyeglasses), glass for electric bulbs, glass for electronic tubes, glass for miscellaneous tubes, rods, and bulbs (glass tubes for ampules, etc.)

Glass products, n.e.c.: Glass containers (glass containers for drinks, foods and seasonings, cosmetics, and ink bottles), glassware for scientific and medical use (flasks, beakers, test tubes, ampoules, and medicine bottles), table glassware, kitchen and dining table glassware, other glassware (inner glass containers for thermoses, glass products for lighting and signaling, glass blocks, and glass tiles)

Column Code	Row Code	Sector Name
2521-01	2521-011	Cement

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Cement" listed under Industry Number 2121 of the Japan Standard Industrial Classification; cement clinkers are classified as intermediate products.

(Given examples)

Portland cement, fly ash cement, blast furnace cement, silica cement

Column Code	Row Code	Sector Name
2521-02	2521-021	Ready mixed concrete

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Fresh concrete" listed under Industry Number 2122 of the Japan Standard Industrial Classification.

Column Code	Row Code	Sector Name
2521-03	2521-031	Cement products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Concrete products" listed under

Industry Number 2123 and “Miscellaneous cement products” listed under Industry Number 2129 of the Japan Standard Industrial Classification.

(Given examples)

Concrete panels, centrifugal reinforced concrete products (pipes, pillars, and piles), regular concrete pipes, and hollow concrete blocks, concrete blocks for earth works, concrete products for pavement, pre-stressed concrete products, terrazzo products, prefabricated concrete housing, other cement products (cement roof tiles, thick type slate, wood cement products, and aerated concrete products)

Column Code	Row Code	Sector Name
2531-01		Pottery, china and earthenware
	2531-011	Pottery, china and earthenware for construction
	2531-012	Pottery, china and earthenware for industry
	2531-013	Pottery, china and earthenware for home use

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “POTTERY AND RELATED PRODUCTS” listed under Group Number 214 of the Japan Standard Industrial Classification.

(Given examples)

Pottery, china and earthenware for construction: Plumbing fixtures (bathtubs, hand basins, toilet bowls, and water cisterns), tiles (mosaic tiles, interior tiles)

Pottery, china and earthenware for industry: Porcelain for electrical applications (insulators, insulating tubes, special porcelain parts for electrical use, fine ceramic IC-boards, and packaged board (annealed)), porcelain products for scientific and industrial use, and fine ceramics (annealed) for scientific and industrial use

Pottery, china and earthenware for home use: Ceramic tableware, pottery kitchen and cooking ware, pottery ornaments, painted pottery, pottery clay

Column Code	Row Code	Sector Name
2591-01	2591-011	Clay refractories

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of “CLAY REFRACTORIES” listed under Group Number 215 of the Japan Standard Industrial Classification.

(Given examples)

Refractory bricks, unshaped refractory materials (refractory mortar, castable refractory materials), artificial refractory materials (magnesia-clinker, synthetic mullite), and other refractory materials (including clay melting pot and blocks for blast furnaces)

Column Code	Row Code	Sector Name
2591-09	2591-099	Miscellaneous structural clay products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “CLAY PRODUCTS FOR CONSTRUCTION, EXCEPT THOSE OF POTTERY” listed under Group Number 213 and “Gypsum products” listed under Industry Number 2192 of the Japan Standard Industrial Classification.

(Given examples)

Plaster board and its products (decorative boards, LAS plaster board, waterproof plaster board, reinforced plaster board, etc.), gypsum plaster products, baked plaster, clay roof tiles (ibushi roof tiles, glazed roof tiles, and salt-baked roof tiles), regular bricks, other structural clay products (porcelain pipes, etc.)

Column Code	Row Code	Sector Name
2599-01	2599-011	Carbon and graphite products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Carbon fibers” listed under Industry Number 1113 and “CARBON AND GRAPHITE PRODUCTS” listed under Group Number 216 of the Japan Standard Industrial Classification.

(Given examples)

Electrodes (graphite electrodes, electrolytic plate, carbon electrodes, and continuous self-burning electrode paste), carbon fibers, carbon bars (for gauging and batteries), brushes (artificial graphite, metallic graphite), graphite melting pots, refined graphite, carbon bricks, graphite bricks, special carbon products

Column Code	Row Code	Sector Name
2599-02	2599-021	Abrasive and its products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "ABRASIVE AND ITS PRODUCTS" listed under Group Number 217 of the Japan Standard Industrial Classification.

(Given examples)

Natural abrasives, processed abrasives, abrasive grinders, abrasive cloth paper, reclaimed abrasives, natural abrasive grinders

Column Code	Row Code	Sector Name
2599-09	2599-099	Miscellaneous ceramic, stone and clay products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Reclaimed aggregate" listed under Industry Number 2182, "Artificial aggregate" listed under Industry Number 2183, "Cut-stones and stone ware products" listed under Industry Number 2184, "Diatomaceous earth and its products" listed under Industry Number 2185, "Minerals and stones crushed or otherwise treated" listed under Industry Number 2186, "Rock wool, slag wool and its products" listed under 2191, "Lime products" listed under Industry Number 2193, "Molds, including cores" listed under Industry Number 2194, and "Ceramic, stone and clay products, n.e.c." listed under Industry Number 2199 of the Japan Standard Industrial Classification.

(Given examples)

Enameled containers (enameled kitchen and table ware, enameled sanitary articles), lime ash (raw lime, slaked lime, light calcium carbonate), other stone and clay products (Reclaimed aggregate, artificial bones, stone-made parts, diatomite and its products, crushed minerals, crushed stone and clay, and other treated items), jewelry products (cloisonne products, artificial jewels), rock wool and its products, molds, other ceramic, stone, and clay products (enamel, mica)

26 Iron and steel

Column Code	Row Code	Sector Name
2611-01	2611-011	Pig iron

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of pig iron not dependent on blast furnace iron and blast furnaces specified in "MANUFACTURE OF IRON AND STEEL" listed under Major Group Number 22 (exclusive of "ESTABLISHMENTS ENGAGED IN ADMINISTRATIVE OR ANCILLARY ECONOMIC ACTIVITIES (MANUFACTURE OF IRON AND STEEL)" listed under Group Number 220) of the Japan Standard Industrial Classification; includes raw iron, pure iron, and base metals

(Given examples)

Blast furnace iron, electric furnace iron

Column Code	Row Code	Sector Name
2611-02	2611-021	Ferro-alloys

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Ferro-alloys" listed under Industry Number 2213 of the Japan Standard Industrial Classification.

(Given examples)

Ferro-nickel, ferro-chrome, ferro-manganese, ferro-molybdenum, ferro-vanadium

Column Code	Row Code	Sector Name
2611-03	2611-031	Crude steel (converters)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of steel ingots based on converters, specified in "MANUFACTURE OF IRON AND STEEL" listed under Major Group Number 22 (exclusive of "ESTABLISHMENTS ENGAGED IN ADMINISTRATIVE OR ANCILLARY ECONOMIC ACTIVITIES (MANUFACTURE OF IRON AND STEEL)" listed under Group Number 220) of the Japan Standard Industrial Classification.

(Given examples)

Ordinary crude steel, special crude steel

Column Code	Row Code	Sector Name
2611-04	2611-041	Crude steel (electric furnaces)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of steel ingots based on electric furnaces, specified in "MANUFACTURE OF IRON AND STEEL" listed under Major Group Number 22 (exclusive of "ESTABLISHMENTS ENGAGED IN ADMINISTRATIVE OR ANCILLARY ECONOMIC ACTIVITIES (MANUFACTURE OF IRON AND STEEL)" listed under Group Number 220) of the Japan Standard Industrial Classification.

(Given examples)

Ordinary crude steel, special crude steel

Column Code	Row Code	Sector Name
	2612-011P	Scrap Iron

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

This sector competes with iron scrap generating in the production activities of each sector and in the final demand sectors

(Notes)

No sector generating iron scrap as a major product competes with this sector, and therefore the row code is set as a dummy sector.

Column Code	Row Code	Sector Name
2621-01		Hot rolled steel
	2621-011	Section steel (ordinary steel)
	2621-012	Steep plate (ordinary steel)
	2621-013	Steel strip (ordinary steel)
	2621-014	Steel bar (ordinary steel)
	2621-015	Miscellaneous hot rolled steel (ordinary steel)
	2621-016	Hot rolled steel (special steel)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of rails, section steel, steel bars and rods, wire materials, step plates, steel pipes and tubes, steel strips, paddle wheels, tool steel, structural steel, steel for special use, and semi-finished steel specified under "MANUFACTURE OF IRON AND STEEL" listed under Major Group Number 22 (exclusive of "ESTABLISHMENTS ENGAGED IN ADMINISTRATIVE OR ANCILLARY ECONOMIC ACTIVITIES (MANUFACTURE OF IRON AND STEEL)" listed under Group Number 220) of the Japan Standard Industrial Classification.

Semi-finished steel is handled as an intermediate product.

(Given examples)

Section steel (ordinary steel): Structural steel plate, H-shape steel, large, medium, and small tool steel

Steep plate (ordinary steel): Thick plate, medium thickness plate, thin plate

Steel strip (ordinary steel): Cold-rolled steel band, steel band for other uses

Steel bar (ordinary steel): Round bar for small structural use, deformed bar for small structural, other small steel bar and rod products

Miscellaneous hot rolled steel (ordinary steel): Rails, large and medium steel bars and rods, steel pipes and tubes, bar in coil form, wire materials, paddle wheel

Hot rolled steel (special steel): Tool steel, structural steel, spring steel, bearing steel, stainless steel, refractory steel, free-cutting steel, piano string materials, high-tensile steel, manganese steel, alloy steel materials

Column Code	Row Code	Sector Name
2622-01		Steel pipes and tubes
	2622-011	Steel pipes and tubes (ordinary steel)
	2622-012	Steel pipes and tubes (special steel)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of hot steel pipes and tubes, cold steel pipes and tubes, and plated steel pipes and tubes specified under "MANUFACTURE OF IRON AND STEEL" listed under Major Group Number 22 (exclusive of "ESTABLISHMENTS ENGAGED IN ADMINISTRATIVE OR ANCILLARY ECONOMIC ACTIVITIES (MANUFACTURE OF IRON AND STEEL)" listed under Group Number 220) of the Japan Standard Industrial Classification.

(Given examples)

Steel pipes and tubes (ordinary steel): Ordinary hot-worked steel pipes and tubes (seamless steel pipes and tubes, high-

frequency welded steel tubes, and arc-welded steel tubes), ordinary steel pipes and tubes for cold drawing, ordinary coated steel pipes and tubes

Steel pipes and tubes (special steel): Hot-worked special steel pipes and tubes (seamless steel pipes and tubes, high frequency welded steel tubes, and arc-welded steel tubes), special steel pipes and tubes for cold drawing

Column Code	Row Code	Sector Name
2623-01		Cold-finished steel
	2623-011	Cold-finished steel (ordinary steel)
	2623-012	Cold-finished steel (special steel)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of cold-rolled tool steel, strip steel, bar and rod steel, cold-rolled steel plate, cold-rolled wide steel band, cold-rolled electric furnace strip steel, steel wire, carbon steel for cold rolling, hard steel wire, solder rod core wire, P.C. steel wire, piano strings, stainless steel wire, other special steel wire specified under "MANUFACTURE OF IRON AND STEEL" listed under Major Group Number 22 (exclusive of "ESTABLISHMENTS ENGAGED IN ADMINISTRATIVE OR ANCILLARY ECONOMIC ACTIVITIES (MANUFACTURE OF IRON AND STEEL)" listed under Group Number 220) of the Japan Standard Industrial Classification.

(Given examples)

Coldfinished steel (ordinary steel): Strip steel, cold-rolled wide steel band, old-rolled steel plate, cold-rolled electric furnace strip steel, bar and rod steel, steel wire, carbon steel for cold rolling, hard steel wire, solder rod core wire, light-gauge structural steel plate, light-gauge section steel

Coldfinished steel (special steel): Strip steel, cold-rolled wide steel band, cold-rolled steel plate, bar and rod steel, P.C. steel wire, piano strings, stainless steel wire, carbon steel for cold rolling, other special steel wire

Column Code	Row Code	Sector Name
2623-02	2623-021	Coated steel

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities except for coated steel tubes for "COATED STEEL" listed under Group Number 224 of the Japan Standard Industrial Classification.

(Given examples)

Tin plate, zinc-coated steel, steel wire, zinc-coated hard steel wire, aluminum-coated steel plates, tin-free steel

Column Code	Row Code	Sector Name
2631-01		Cast and forged steel
	2631-011	Forged steel
	2631-012	Cast steel

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Steel castings" listed under Industry Number 2253 and "Steel forgings" listed under Industry Number 2255 of the Japan Standard Industrial Classification.

(Given examples)

Forged steel: Ordinary forged steel materials and special forged steel materials (before gas-cutting)

Cast steel: Ordinary cast steel materials and special cast steel materials (before riser cutting)

Column Code	Row Code	Sector Name
2631-02	2631-021	Cast iron pipes and tubes

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Cast iron pipe" listed under Industry Number 2293 of the Japan Standard Industrial Classification.

(Given examples)

Straight pipes (regular type, hard cast iron), deformed pipes (regular type, hard cast iron)

Column Code	Row Code	Sector Name
2631-03		Cast and forged materials (iron)
	2631-031	Cast materials (iron)
	2631-032	Forged materials (iron)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Iron castings, except cast iron pipes and malleable iron castings" listed under Industry Number 2251, "Malleable iron castings" listed under Industry Number

2252, and “Steel product forgings” listed under Industry Number 2254 of the Japan Standard Industrial Classification.

(Given examples)

Cast materials (iron): Iron castings, spheroidal graphite cast iron, alloy cast iron, malleable cast iron, precision cast parts, malleable cast iron joints

Forged materials (iron): Forged parts (for automobiles, for industrial machines)

Column Code	Row Code	Sector Name
2699-01	2699-011	Iron and steel shearing and slitting

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Iron and steel shearing and slitting” listed under Industry Number 2291 of the Japan Standard Industrial Classification.

Column Code	Row Code	Sector Name
2699-09	2699-099	Miscellaneous iron or steel products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Iron and steel, n.e.c.” listed under Industry Number 2299 of the Japan Standard Industrial Classification.

(Given examples)

Iron powder, rolled pure iron, pellets

27 Non-ferrous metals

Column Code	Row Code	Sector Name
2711-01	2711-011	Copper

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for the “Primary smelting and refining of copper” listed under Industry Number 2311 of the Japan Standard Industrial Classification.

Crude copper is classified as intermediate product.

Column Code	Row Code	Sector Name
2711-02	2711-021	Lead and zinc (including regenerated lead)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of “Primary smelting and refining of zinc” listed under Industry Number 2312, primary smelting and refining of lead specified in “Miscellaneous primary smelting and refining of non-ferrous metals” listed under Industry Number 2319, “Secondary smelting and refining of lead, including lead alloys” listed under Industry Number 2321, and the production activities of zinc regeneration and zinc alloy manufacturing specified in “Miscellaneous secondary smelting and refining of non-ferrous metals, including non-ferrous alloys” listed under Industry Number 2329 of the Japan Standard Industrial Classification.

Crude lead, including crude lead generated as a by-product, is classified as intermediate product.

(Given examples)

Lead, regenerated lead, anti-friction metal alloy, solder, zinc, regenerated zinc, zinc alloy

Column Code	Row Code	Sector Name
2711-03	2711-031	Aluminum (including regenerated aluminum)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of aluminum smelting and refining and alumina refining specified in “Miscellaneous primary smelting and refining of non-ferrous metals” listed under Industry Number 2319 and “Secondary smelting and refining of

aluminum including aluminum alloys" listed under Industry Number 2322 of the Japan Standard Industrial Classification.

(Given examples)

Raw aluminum, alumina, hydro-oxide aluminum, regenerated aluminum, aluminum alloy

Column Code	Row Code	Sector Name
2711-09	2711-099	Miscellaneous non-ferrous metals

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities exclusive of aluminum smelting and refining, alumina refining, and primary smelting and refining of lead specified in "Miscellaneous primary smelting and refining of non-ferrous metals" listed under Industry Number 2319 and production activities exclusive of zinc regeneration and zinc alloy manufacturing specified in "Miscellaneous secondary smelting and refining of non-ferrous metals, including non-ferrous alloys" listed under Industry Number 2329 of the Japan Standard Industrial Classification.

(Given examples)

Gold, silver, titanium, tungsten, tin, antimony, regenerated gold, gold alloy, regenerated silver, silver alloy, regenerated copper, copper alloy

Column Code	Row Code	Sector Name
	2712-011P	Non-ferrous metal scrap

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

A competitive sector for non-ferrous metal scrap generated in the production activities of manufacturers and in the final demand sectors

(Notes)

No sector generating non-ferrous metal scrap as a major product competes with this sector, and therefore the row code is set as a dummy sector.

Column Code	Row Code	Sector Name
2721-01	2721-011	Electric wires and cables

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Electric wire and cable, except optical fiber cable" listed under Industry Number 2341 of the Japan Standard Industrial Classification.

Bare wire and rough drawing wire are classified as intermediate products.

(Given examples)

Communication wires and cables, power wires and cables

Column Code	Row Code	Sector Name
2721-02	2721-021	Optical fiber cables

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Optical fiber cables, including telecommunication composite cables" listed under Industry Number 2342 of the Japan Standard Industrial Classification.

Column Code	Row Code	Sector Name
2729-01	2729-011	Rolled and drawn copper and copper alloys

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for the "Rolling and drawing of copper and copper alloys" listed under Industry Number 2331 of the Japan Standard Industrial Classification.

(Given examples)

Rolled and drawn articles of copper, yellow copper, and bronze

Column Code	Row Code	Sector Name
2729-02	2729-021	Rolled and drawn aluminum

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for the "Rolling of aluminum and aluminum alloys, including drawing and extruding" listed under Industry Number 2332 of the Japan Standard Industrial Classification.

(Given examples)

Rolled and drawn aluminum (plates, discs, thread, tubes, bars, wires, formed materials, foil)

Column Code	Row Code	Sector Name
2729-03	2729-031	Non-ferrous metal castings and forgings

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “NON-FERROUS METAL MACHINE PARTS AND TOOLING PRODUCTS” listed under Group Number 235 of the Japan Standard Industrial Classification.

(Given examples)

Castings (copper, copper alloys, aluminum, etc.), die castings (aluminum, lead, etc.), precision castings, forgings (aluminum, etc.)

Column Code	Row Code	Sector Name
2729-04	2729-041	Nuclear fuels

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Nuclear fuel” listed under Industry Number 2391 of the Japan Standard Industrial Classification.

Column Code	Row Code	Sector Name
2729-09	2729-099	Miscellaneous non-ferrous metal products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Miscellaneous rolling of non-ferrous metals and alloys, including drawing and extruding” listed under Industry Number 2339, and “Non-ferrous metal products, n.e.c.” listed under Industry Number 2399 of the Japan Standard Industrial Classification.

Crude products are classified as intermediate products.

(Given examples)

Lead pipes, lead plates, rolled non-ferrous metal and alloy materials (except aluminum), non-ferrous metal and alloy powder, other non-ferrous metal products

28 Metal products

Column Code	Row Code	Sector Name
2811-01	2811-011	Fabricated construction-use metal products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Iron framework” listed under Industry Number 2441, and “Constructional metal products, except iron framework” listed under Industry Number 2442 of the Japan Standard Industrial Classification.

(Given examples)

Steel frames, light-gauge steel frames, iron bridge components, iron tower components, floodgates, metal ladders

Column Code	Row Code	Sector Name
2812-01	2812-011	Fabricated architectural metal products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Metal sashes and doors” listed under Industry Number 2443, “Steel framed prefab housing” listed under Industry Number 2444, and “Fabricated architectural metal products, except sashes, doors and structural hardwares” listed under Industry Number 2445 of the Japan Standard Industrial Classification.

(Given examples)

Aluminum window and door sashes, other metal window and door sashes, steel-framed pre-fabricated houses, unit-type houses, metal lathes, shutters, metal plate structural products, metal sheds

Column Code	Row Code	Sector Name
2891-01	2891-011	Gas and oil appliances, heating and cooking apparatus

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Gas and oil appliances” listed under Industry Number 2432, “Heated air and hot water heating systems” listed under Industry Number 2433, and “Miscellaneous heating and cooking apparatus, except electrical appliances and gas and oil appliances” listed under Industry Number 2439

of the Japan Standard Industrial Classification.

(Given examples)

Gas appliances such as gas ovens, bath heaters and flash water heaters, oil appliances such as kerosene stoves, heated air systems, heated water systems such as heated water boilers, heating and cooking apparatus, solar heating appliances

Column Code	Row Code	Sector Name
2899-01	2899-011	Bolts, nuts, rivets and springs

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "BOLTS, NUTS, RIVETS, MACHINE SCREWS AND WOOD SCREWS" listed under Group Number 248, and "Metallic springs" listed under Industry Number 2492 of the Japan Standard Industrial Classification.

Column Code	Row Code	Sector Name
2899-02	2899-021	Metal containers, fabricated plate and sheet metal

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "TIN CANS AND OTHER PLATED SHEET PRODUCTS" listed under Group Number 241 and "Fabricated plate work and sheet metal work" listed under Industry Number 2446 of the Japan Standard Industrial Classification.

(Given examples)

Oil drums, 18 liter cans, metal cans (for canned foods), general purpose cans, containers, tanks made of metal sheet, high pressure vessels tanks

Column Code	Row Code	Sector Name
2899-03		Plumbing accessories, powder metallurgy products and tools
	2899-031	Plumbing accessories
	2899-032	Powder metallurgy products
	2899-033	Cutlery and tools

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Edge tools for machinery" listed under Industry Number 2422, "Edge tools, artisans' tools and hand tools, except files, saws and knives for kitchen use" listed under Industry Number 2423, "Working tools" listed under Industry Number 2424, "Hand saws and saw blades" listed under Industry Number 2425, "Agricultural tools, except agricultural machinery" listed under Industry Number 2426, "Plumbing supplies, except valves and cocks" listed under Industry Number 2431, and "Powder metallurgy products" listed under Industry Number 2453 of the Japan Standard Industrial Classification.

(Given examples)

Plumber's supplies: Pipe joint (metal), metal sanitary ware, atomizing nozzles, sprinkler heads, drain-pipe shut-off plugs

Powder metallurgy products: Machine parts (powder metallurgy), carbide tips, carbide tools (powder- or metallurgy-based)

Cutlery and tools: Machine edge, artisan's tools and hand tools (cooking knives, knives, scissors, and barber's tools, picks, hammers, shovels, and scoops), files, work tools (wrenches, cutting pliers, and screwdrivers), hand saws, saw blades, farm tools (rakes, hoes, and scythes), farm tool parts

Column Code	Row Code	Sector Name
2899-09		Miscellaneous metal products
	2899-091	Stamped and pressed metal products
	2899-092	Fabricated wire products
	2899-099	Metal products, n.e.c.

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "Tableware (occidental type)" listed under Industry Number 2421, "Miscellaneous hardware" listed under Industry Number 2429, "Stamped and pressed aluminum products and aluminum alloys" listed under Industry Number 2451, "Stamped and pressed metal products, except aluminum and aluminum alloys" listed under Industry Number 2452, "METAL COATING, ENGRAVING AND HEAT TREATING, EXCEPT ENAMELED IRONWARE" listed under Group Number 246, "FABRICATED WIRE PRODUCTS, EXCEPT SCREWS" listed under Group Number 247, "Safes" listed under Industry Number 2491, "Fabricated metal products, n.e.c." listed under Industry Number 2499 of the Japan Standard Industrial Classification, including the production of coins by the Japan Mint.

(Given examples)

Stamped and pressed metal products: Aluminum machine parts, aluminum kitchen and tableware, aluminum cans for drinks, other metal products (stamped and pressed machine parts, bottle crowns)

Fabricated wire products: Nails, Metal nets, PC steel twisted wire, wire rope, welding rods

Metal products, n.e.c.: Tableware (occidental-type), other metal wares (keys, locks, structural metal ware, and cable metal ware), surface-treated metal products (engraved metal products, heat-treated metal products, etc.), safes and their parts, fixtures and accessories, other metal products (coins, metal packing and gaskets, metal name tags, metal tube clamps, metal foils, stepladders, etc.)

29 General-purpose machinery

Column Code	Row Code	Sector Name
2911-01	2911-011	Boilers

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Boilers" listed under Industry Number 2511 of the Japan Standard Industrial Classification.

(Given examples)

Steam boilers, water heaters, and boiler parts, fixtures and accessories

Column Code	Row Code	Sector Name
2911-02	2911-021	Turbines

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Steam engines, turbines and water turbines, except marine engines" listed under Industry Number 2512 of the Japan Standard Industrial Classification.

(Given examples)

Steam turbines, water-powered turbines, gas-fired turbines, parts, fixtures and accessories for steam engines, turbines, and water-powered turbines

(Notes)

Turbines for aircrafts are classified under "3592-01, -011 Aircrafts."

Column Code	Row Code	Sector Name
2911-03	2911-031	Engines

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "General-purpose internal combustion engines" listed under Industry Number 2513 and "Miscellaneous engines and turbines" listed under Industry Number 2519 of the Japan Standard Industrial Classification.

(Given examples)

General-purpose gasoline engines, general-purpose kerosene engines, general-purpose diesel engines, general-purpose gas engines, atomic power reactors, water wheels (excluding water power turbines), windmill engines, compressed-air engines,

parts, fixtures and accessories for general-purpose internal combustion engines, atomic power reactors, and other engines

(Notes)

(1) Internal combustion engines for vessels, aircrafts, automobiles, and motorcycles are not classified in this sector.

(2) Electrical equipment for internal combustion engines is classified under "3311-05, -051 Electrical equipment for internal combustion engines."

Column Code	Row Code	Sector Name
2912-01	2912-011	Pumps and compressors

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

Production of "PUMPS AND COMPRESSORS" listed under Group Number 252 of the Japan Standard Industrial Classification.

(Given examples)

Pumps and pumping equipment: (single-step rotary pumps, multi-step rotary pumps, pumps (anti-corrosive type), electric pumps (for household), hand-operated pumps, etc.), air compressors, gas compressors, blowers (cylindrical compressors, rotary compressors, centrifugal compressors, axial compressors, etc.), hydraulic and pneumatic equipment (hydraulic pumps, hydraulic motors, hydraulic cylinders, hydraulic valves, pneumatic equipment, etc.), and parts, fixtures, and accessories for pumps and compressors

(Notes)

(1) This sector includes fire pumps and vessel pumps.

(2) Vacuum pumps are classified under "3019-02, -021 Vacuum equipment and vacuum component." Automotive fuel pumps are classified under "3531-01, -011 Internal combustion engines for motor vehicles," motor pumps for aircrafts are classified under "3592-01, -011 Aircrafts," and metering pumps are classified under "3113-01, -011 Measuring instruments."

Column Code	Row Code	Sector Name
2913-01	2913-011	Conveyors

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Elevators and escalators" listed under Industry Number 2532 and "Logistics and conveying equipment" listed under Industry Number 2533 of the Japan Standard Industrial Classification.

(Given examples)

Elevators including for home use, escalators including moving walkways, cranes, hoists, conveyors, and parts, fixtures and accessories for conveying machines

(Notes)

Elevators for automobiles are classified under "2919-09 Miscellaneous general-purpose machinery" and "2919-099 General-purpose machinery, n.e.c."

Column Code	Row Code	Sector Name
2914-01	2914-011	Refrigerators and air conditioning apparatus

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Refrigerating machines and air conditioning apparatus" listed under Industry Number 2535 of the Japan Standard Industrial Classification.

(Given examples)

Refrigerators, refrigerated and cooled display cases (incl. shelves for frozen foods), packaged air-conditioners, water coolers, cooling towers, cooling apparatus, freezing apparatus, ice-making apparatus, dehumidifiers (excluding for consumer use), parts, fixtures and accessories for refrigerators, and heat and humidity conditioners

Column Code	Row Code	Sector Name
2919-01	2919-011	Bearings

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Ball and roller bearings" listed under Industry Number 2594 of the Japan Standard Industrial Classification.

(Given examples)

Bearing shaft receptacles, roller shaft receptacles, shaft units, and parts of bearing shaft receptacles and roller shaft receptacles

Column Code	Row Code	Sector Name
2919-09		Miscellaneous general-purpose machinery
	2919-091	Mechanical power transmission equipment
	2919-099	General-purpose machinery, n.e.c.

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Mechanical power transmission equipment, except ball and roller bearings" listed under Industry Number 2531, "Industrial furnaces and ovens" listed under Industry Number 2534, "Fire extinguishing equipment and its apparatus" listed under Industry Number 2591, "Valves and fittings" listed under Industry Number 2592, "Fabricated pipe and fittings" listed under Industry Number 2593, "Piston rings" listed under Industry Number 2595, "General-purpose machinery and apparatus, n.e.c." listed under Industry Number 2596, and "Machine shops (jobbing and repair)" listed under Industry Number 2599 of the Japan Standard Industrial Classification.

(Given examples)

Mechanical power transmission equipment: Transmissions, gears (including those of plastics), roller chains

General-purpose machinery, n.e.c.: Industrial ovens, fire extinguishing gear, fire engine equipment, high-temperature high pressure valves, automatic adjustable valves, supply and drain valves, cocks, general purpose valves and cocks, cut, bent, and threaded pipe articles, piston rings, heavy oil and gas burners, parking devices, elevators for automobiles, parts, fixtures, and accessories for general-purpose machinery, n.e.c.

(Notes)

(1) "3019-09 Other general industrial machinery and equip ment" (except wrapping and packaging machines) and "3031- 09 Other general machines and parts" in the 2005 I-O Tables were integrated into "2919-09 Miscellaneous general-purpose machinery" in the 2011 I-O Tables; "3019-099 Other general industrial machinery and equipment" (except wrapping and packaging machines)" and "3031-099 Other general machines and parts" in the 2005 I-O Tables were integrated and regrouped into "2919-091 Mechanical power transmission equipment"; and "2919-099 General-purpose machinery, n.e.c." in the 2011 I-O Tables.

(2) Wrapping and packaging machines included in "3019-09, -099 Miscellaneous general-purpose industrial machinery and equipment" in the 2005 I-O Tables were divided and re-grouped into "3014-01 Daily lives industry machinery" and "3014-015 Packing machinery" in the 2011 I-O Tables.

30 Production machinery

Column Code	Row Code	Sector Name
3011-01	3011-011	Machinery for agricultural use

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "AGRICULTURAL MACHINERY AND EQUIPMENT, EXCEPT AGRICULTURAL TOOLS" listed under Group Number 261 of the Japan Standard Industrial Classification.

(Given examples)

Cultivators, push tractors, sprays, dust sprays, rice seeding machines, rice chaffing machines, agricultural drying machines, combines, cropping machines, feed machines, and parts, fixtures, and accessories for agricultural machinery

(Notes)

Hand tools for farming are classified under the column sector "2899-03 Plumber's supplies, powder metallurgy products and tools" and row column "2899-033 Cutlery and tools."

Column Code	Row Code	Sector Name
3012-01	3012-011	Machinery and equipment for construction and mining

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "MACHINERY AND EQUIPMENT FOR CONSTRUCTION AND MINING" listed under Group Number 262 of the Japan Standard Industrial Classification.

(Given examples)

Excavators, construction cranes, grounding machines, asphalt paving machines, concrete machines, foundation work machines, drilling machines, rock drilling machines, iron piles, crushing machines, triturator, sorters, wheel tractors, caterpillar tractors, and parts, fixtures, and accessories of construction and mining machines

Column Code	Row Code	Sector Name
3013-01	3013-011	Textile machinery

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "TEXTILE MACHINERY" listed under Group Number 263 of the Japan Standard Industrial Classification.

(Given examples)

Chemical fiber fabrication machines, fiber spinning machines, textile fabrication machines, knitting machines, dyeing and finishing machines, sawing machines (household sawing machines, industrial sawing machines), and parts, fixtures, and accessories of textile machinery

Column Code	Row Code	Sector Name
3014-01		Daily lives industry machinery
	3014-011	Food processing machinery and equipment
	3014-012	Wood working machinery
	3014-013	Pulp equipment and paper machinery
	3014-014	Printing, bookbinding and paper-converting machinery
	3014-015	Packing machinery

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

Production of "DAILY LIVES INDUSTRY MACHINERY" listed under Group Number 264 of the Japan Standard Industrial Classification.

(Given examples)

Food processing machinery and equipment: Grain processing machines and systems, bakery and confectionary machines and systems, brewing machines, milk-processing and diary products processing machines and systems, meat and marine products processing machines, and parts, fixtures, and accessories for food processing machinery

Wood working machinery: Timber sawing machinery (band saws, circular saws), woodwork machinery (planers, saws, and nailers), plywood machinery (veneer lathes, presses, and cutters), and parts, fixtures, and accessories for machinery for timber, woodwork, and plywood

Pulp and paper machines: Pulp machines and machinery (chip-makers, chip-crushers, and refiners), paper machines (long net, round net, short net, combined net), other paper machinery (cutters, winders, coating machines), and parts, fixtures, and accessories of pulp and paper machines

Printing, bookbinding and paperconverting machinery: Printing machines (relief printing machines, lithographic printing machines, (for sizes greater than B3 paper), special

printing machines, intaglio printing machines), bookbinding machines (cutters, binders, and folders), paper processing machines (for paper boxes, corrugate boxes, paper sacks and envelop, and paper cups), plate-making machines (type-casting machines, photographic typesetting machines), and parts, fixtures, and accessories of printing, bookbinding, and paper processing machines

Packing machinery: Wrapping and packaging machines, packing machines, and parts, fixture, and accessories for Packing machines

(Notes)

(1) Wrapping and packaging machines, which had been classified under "3019-099 Other general industrial machinery and equipment" in the 2005 I-O Tables were removed from this sector and included in a new sector, "3014-015 Packing machinery" in the 2011 I-O Tables.

(2) Wrapping and packaging machines, which were classified under "3019-09 Other general industrial machinery and equipment," "3029-03 Food processing machinery and equipment," and wood working machinery, pulp equipment and paper machinery, printing, bookbinding and paper converting machinery, which had been classified under "3029-09 Other special machinery for industrial use" in the 2005 I-O Tables were regrouped and included in "3014-01 Daily lives industry machinery" in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
3015-01	3015-011	Chemical machinery

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Chemical machinery and its equipment" listed under Industry Number 2652 of the Japan Standard Industrial Classification.

(Given examples)

Filters, separators, heat exchangers (including partial condensers), mixers, agitators, kneading machines, dissolvers, granulator, emulsifiers, crushers, reactors, production furnaces, pyrolysis furnaces, electrolytic bathes, evaporators, distillers, machines for crystallizations, dryers, dust controllers, chemical tanks (fixed types, floating-roof types, spheres, and others), chemically treated environment protecting equipment, other chemical machinery and its equipment (presses, roasting machines, sintering machines, calciners, etc.) and parts, fixtures, and accessories of chemical machines

Column Code	Row Code	Sector Name
3015-02		Casting equipment and plastic processing machinery
	3015-021	Casting equipment
	3015-022	Plastic processing machinery

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Casting equipment" listed under Industry Number 2651 and "Machinery for fabrication of plastic and its equipment" listed under Industry Number 2653 of the Japan Standard Industrial Classification.

(Given examples)

Casting equipment: Die-casting machines, other casting machines (die-molding, die-inserting, inner arrangement, and specialty die molding), dies and die-fitting (limited to iron and steel), and parts, fixtures, and accessories for casting machines

Plastic processing machinery: Injectors, Extruders, other plastic processing machines (compressed molding, blow molding, vacuum molding), and parts, fixtures, and accessories for plastic processing machines

Column Code	Row Code	Sector Name
3016-01	3016-011	Metal machine tools

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Metal cutting machine tools" listed under Industry Number 2661 and parts and accessories for metal working machines specified in "Parts and accessories for metalworking machines and metal cutting machine tools, except machinists' tools, molds and dies" listed under Industry Number 2663 of the Japan Standard Industrial Classification.

(Given examples)

Turning machines, drilling machines, boring machines, milling machines, grinding machines, gear-cutting machines, gear finishing machines, special purpose machines, machining centers, other metal machining tools (flat grinding machines, transverse shaping machines, broaching machines, horning machines, lapping machines, metal sawing machines, etc.), and parts, fixtures, and accessories for machine-tools

Column Code	Row Code	Sector Name
3016-02	3016-021	Metal processing machinery

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Metalworking machinery and its equipment, except metal cutting machine tools” listed under Industry Number 2662 and parts and accessories for metal-working machines specified in “Parts and accessories for metalworking machines and metal cutting machine tools, except machinists' tools, molds and dies” listed under Industry Number 2663 of the Japan Standard Industrial Classification.

(Given examples)

Metal rolling machines and auxiliary equipment, refiner, bending machines, hydraulic pressing machines, mechanical pressing machines, shearing machines, forging machines, wire-forming machines, gas welding machines, fusing machines, other metal machining tools (tube mills, pneumatic presses, etc.), rolls for metal rolling, and parts, fixtures, and accessories for metal machine tools

Column Code	Row Code	Sector Name
3016-03	3016-031	Machinists’ precision tools

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Machinists' tools, except powder metallurgy products” listed under Industry Number 2664 of the Japan Standard Industrial Classification.

(Given examples)

Special steel cutting tools, carbide tipped tools (excluding powder metallurgy), air tools, electric tools, diamond bladed tools, and jigs and accessories for metal processing

(Notes)

Carbide tipped tools (powder metallurgy) are classified under the column sector “2899-03 Plumber’s supplies, powder metallurgy products and tools” and row sector “2899-032 Powder metallurgy products.”

Column Code	Row Code	Sector Name
3017-01	3017-011	Semiconductor making equipment

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “SEMICONDUCTOR AND FLAT-PANEL DISPLAY MANUFACTURING EQUIPMENT” listed under Group Number 267 of the Japan Standard Industrial Classification.

(Given examples)

Handling devices for wafer processes (electronic circuitry formation), semiconductor assembly devices, flat panel display manufacturing devices, and parts, fixtures, and accessories for semiconductor and flat panel display manufacturing devices

Column Code	Row Code	Sector Name
3019-01	3019-011	Metal molds

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Molds and dies, parts and accessories for metal products” listed under Industry Number 2691, and “Molds and dies, parts and accessories for nonmetal products” listed under Industry Number 2692 of the Japan Standard Industrial Classification.

(Given examples)

Metal molds for press machines, metal molds for forging, metal molds for casting (including die-casting), metal molds for plastics, molds for rubber, and parts and accessories for molds and dies

Column Code	Row Code	Sector Name
3019-02	3019-021	Vacuum equipment and vacuum component

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Vacuum equipment and vacuum component” listed under Industry Number 2693 of the Japan Standard Industrial Classification.

(Given examples)

Vacuum equipment and vacuum components except semiconductor manufacturing devices (vacuum pumps, vacuum metallurgy equipment, vacuum chemical equipment, vacuum deposition equipment, vacuum coating equipment, sputtering apparatuses, dry etching equipment, CVD equipment, ion implantation equipment, etc.), and parts, fixtures, and accessories for vacuum equipment and vacuum components

Column Code	Row Code	Sector Name
3019-03	3019-031	Robots

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Robots” listed under Industry Number 2694 of the Japan Standard Industrial Classification.

(Given examples)

Manual manipulators, fixed-sequence robots, variable-sequence robots, playback robots, computer-controlled robots, and parts, fixtures, and accessories for robots

Column Code	Row Code	Sector Name
3019-09	3019-099	Miscellaneous production machinery

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Production machinery and machine parts, n.e.c.” listed under Industry Number 2699 of the Japan Standard Industrial Classification.

(Given examples)

Machines and tools for the rubber industry, specialty machines for the glass industry, other specialty industrial machines (tobacco machines, specialty machines for the chemical and drug, hat-making, leather-processing, and shoe-making industries), and parts, fixtures, and accessories for miscellaneous production machinery

(Notes)

Other production machinery which had been classified under “3029-09 Other special machinery for industrial use” in the 2005 I-O Tables was removed from this sector and included in “3019-09 Miscellaneous production machinery” in the 2011 I-O Tables.

31 Business oriented machinery

Column Code	Row Code	Sector Name
3111-01	3111-011	Copy machine

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for copying machines specified in “Copying machines” listed under Industry Number 2711 of the Japan Standard Industrial Classification.

(Given examples)

Electrostatic indirect copying machines, digital copying machines, full-color copying machines, and parts, fixtures, and accessories for copying machines

Column Code	Row Code	Sector Name
3111-09	3111-099	Miscellaneous office machines

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Miscellaneous office machines” listed under Industry Number 2719 of the Japan Standard Industrial Classification.

(Given examples)

Accounting registers (cash registers), electronic accounting machines except stored-program machines, word processors, typewriters, time recorders, duplicators, address printers, microfilm machines, offset printing machines (for sizes smaller than B3 paper), coin calculators, shredders for office use, drawing machines, and parts, fixtures, and accessories for other office machines

(Notes)

Electronic computing equipment is included in “3421-01, -011 Personal Computers” or “3421-02, -021 Electronic computing equipment (except personal computers).” Office supplies such as slide rules, Japanese abacuses, mimeographs, and design and drawing instruments are included in “3919-04, -041 Stationery.”

Column Code	Row Code	Sector Name
3112-01		Service industry and amusement machines
	3112-011	Vending machines
	3112-012	Amusement machinery
	3112-019	Miscellaneous machinery for service industry

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "SERVICE INDUSTRY AND AMUSEMENT MACHINES" listed under Group Number 272 of the Japan Standard Industrial Classification.

(Given examples)

Vending machines: Vending machines for beverages and food stuffs, tobacco vending machines, ticket tellers, and parts, fixtures, and accessories for vending machines

Amusement machinery: "Pachinko" machines, slot machines (pachinko tables, pachinko ball feeders, and slot machine tables), amusement machines for game centers (arcade game machines, crane game machines, and industrial TV game machines), machines for amusement parks (jet coasters, merry-go-rounds, and other amusement rides), and parts, fixtures, and accessories for amusement machinery

Miscellaneous machinery for service industry: Professional laundry machines, automobile adjustment and repair tools, other service industry and amusement machines (dish washers for industrial use, automatic tea makers, automatic ticket inspection machines, automatic entrance inspection machines, money exchangers, coin lockers, automatic doors, etc.), and parts, fixtures, and accessories for miscellaneous service industry and amusement machines

(Notes)

Elevators for household use are included in the column and row sector "2913-01, -011 Conveyors"

Column Code	Row Code	Sector Name
3113-01	3113-011	Measuring instruments

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "MEASURING INSTRUMENTS, ANALYTICAL INSTRUMENTS,TESTING MACHINES, SURVEYING INSTRUMENTS AND PHYSICAL AND CHEMICAL INSTRUMENTS" listed under Group Number 273 of the Japan Standard Industrial Classification.

(Given examples)

Volume meters (integral volume meters (oil volume meters, gas volume meters, and water volume meters), other volume meters (measuring cups, volume meters for chemistry, and measuring flasks)), scales (fixed scales, spring scales, and electronic scales), pressure meters, flow meters, and level meters, etc. (pressure meters, metallic thermometers, flow meters, level meters), precision measuring instruments (industrial range finders, etc.), analytical instruments (optical analyzers, other analyzers), testers (material testers, other testers), geophysical measuring apparatus (gyroscopic instruments, magnetic compasses, angle-measuring apparatus, and level-measuring apparatus), physical and chemical instruments (laboratory instruments (chemical instruments, physical instruments, observatory instruments), educational instruments (experimental instruments for physics, chemistry, natural history and mathematics), astronomical instruments, geophysical instruments (gravity meters, magnetometers)), other measuring instruments, analytical instruments, testing machines, surveying instruments, physical and chemical instruments (universal measures, photometers, integrating photometers, illumination photometers, refractivity photometers, pollution measuring instruments, densitometers, gravimeters, noise maters, frequency meters, speed meters, seismometers, glass thermometers, etc.), and parts, fixtures, and accessories of measuring instruments, analytical instruments, testing machines, surveying instruments, physical and chemical instruments

Column Code	Row Code	Sector Name
3114-01	3114-011	Medical instruments

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "MEDICAL INSTRUMENTS AND APPARATUS, AND MEDICAL SUPPLIES" listed under Group Number 274 of the Japan Standard Industrial Classification.

(Given examples)

Medical instruments, apparatus, and devices, apparatus and devices for hospitals, dental instruments, apparatus and devices, medical supplies, veterinary tools and apparatus, materials for dentistry, and parts, fixtures, and accessories for medical instruments and apparatus

(Notes)

X-ray equipment, electronic equipment, and laser equipment are classified under the sector "3331-01, -011 Applied electronic equipment"

Column Code	Row Code	Sector Name
3115-01	3115-011	Optical instruments and lenses

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "OPTICAL INSTRUMENTS AND APPARATUS, AND LENSES" listed under Group Number 275 of the Japan Standard Industrial Classification.

(Given examples)

Microscopes, telescopes (telescopes, binoculars, microscopes, magnifiers), cameras and motion picture equipment (cameras excluding digital cameras [focal-plane shutter type, lens shutter type, compact cameras, twin-lens cameras, miniature cameras, professional cameras], photographic and related devices [enlarging devices, developing, printing, and finishing devices, photo dryers, readers, and viewers, etc.], motion picture equipment [film cameras, film projectors, slide projectors, film developing devices, film printing devices, film screens, etc.]), lenses and prisms for optical instruments (camera lenses, interchangeable camera lenses, optical lenses, prisms), parts, fixtures and accessories for microscopes and telescopes, etc., parts, fixtures and accessories for cameras and motion picture equipment (filters, hoods, tripods, geared heads with mounting plates, self-timers, range finders, exposure meters, shutters, bodies, foldable camera bodies, camera attachments for close-up photography and telescopic photography, and electronic flash)

Column Code	Row Code	Sector Name
3116-01	3116-011	Ordnance

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "ORDNANCE AND ACCESSORIES" listed under Group Number 276 of the Japan Standard Industrial Classification.

(Given examples)

Weapons, heavy weapons, grenade launchers, cartridges, shells, explosives, other weapons (flame throwers, combat vehicles, fire control systems, etc.), weapons parts and accessories

32 Electronic components

Column Code	Row Code	Sector Name
3211-01	3211-011	Semiconductor devices

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Photoelectric conversion element" listed under Industry Number 2812, and "Semiconductor devices, except photoelectric conversion element" listed under Industry Number 2813 of the Japan Standard Industrial Classification.

(Given examples)

Photoelectric conversion elements (light-emitting diodes, laser diodes, couplers and interrupters, solar cells, etc.), other semiconductor devices (diodes, rectifiers, transistors (silicon transistors, field effect transistors, insulated-gate bipolar transistors, etc.), thermistors, varistors, thyristors, photodetectors, etc.)

(Notes)

Components of semiconductor devices are classified under the sector "3299-09, -099 Miscellaneous electronic components"

Column Code	Row Code	Sector Name
3211-02	3211-021	Integrated circuits

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Integrated circuits" listed under Industry Number 2814 of the Japan Standard Industrial Classification.

Unmounted integrated circuits are classified as intermediate products.

(Given examples)

Linear integrated circuits, bipolar integrated circuits, MOS integrated circuits, hybrid integrated circuits, integrated circuits not mounted (for export)

(Notes)

Components of integrated circuits are classified under the sector "3299-09, -099 Miscellaneous electronic components"

Column Code	Row Code	Sector Name
3211-03	3211-031	Liquid crystal panel

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for liquid crystal panel and liquid crystal devices among those listed as "Liquid crystal panel and flat-panel" as specified in Industry Number 2815 of the Japan Standard Industrial Classification

(Given examples)

Liquid crystal panel: Active types (TFT types), passive types, liquid crystal modules (those conducted in an integrated manner from panel production), liquid crystal devices

Column Code	Row Code	Sector Name
3211-04	3211-041	Flat-panel and electron tubes

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

Production of "Electron tubes" listed under Industry Number 2811 and "Liquid crystal panel and flat-panel" listed under Industry Number 2815 of the Japan Standard Industrial Classification, except liquid crystal panels and liquid crystal devices

(Given examples)

Electron tubes (microwave tubes, cathode-ray tubes [Braun tubes], indicator tubes, x-ray tubes, etc.), plasma display panels, plasma display modules produced in the process of panel production, other flat-panels (organic EL panels, SED panels, FED panels, etc.)

(Changes from the 2011 I-O Tables)

Other flat-panels classified under "3299-09, -099 Miscellaneous electronic components" in the 2011 I-O Tables are integrated into this sector.

(Notes)

Parts of electron tubes are included in "3299-09, -099 Miscellaneous electronic components."

Column Code	Row Code	Sector Name
3299-01	3299-011	Storage media

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

Production of "STORAGE MEDIA" listed under Group Number 283 of the Japan Standard Industrial Classification

(Given examples)

Semiconductor memory media (SD memory cards, memory sticks, CompactFlash, etc.), raw optical discs (magneto-optical discs (MO, etc.), CD-R/RWs, DVD-R/RWs, BD-R/RWs, etc.), raw magnetic discs (rigid discs, etc.), raw magnetic tapes (for audio recording, video recording, and electronic computing equipment)

(Changes from the 2011 I-O Tables)

Semiconductor memory media classified under "3299-09, -099 Miscellaneous electronic components" in the 2011 I-O Tables are integrated into this sector.

Column Code	Row Code	Sector Name
3299-02	3299-021	Electric circuit

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "ELECTRONIC CIRCUIT" listed under Group Number 284 of the Japan Standard Industrial Classification.

(Given examples)

Rigid printed wiring board, flexible printed wiring board, module substrates, printing wiring mounting board, module mounting board

Column Code	Row Code	Sector Name
3299-09	3299-099	Miscellaneous electronic components

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

Production of "ELECTRONIC PARTS" listed under Group Number 282 and "UNIT PARTS" listed under Group Number 285 and "MISCELLANEOUS ELECTRONIC PARTS, DEVICES AND ELECTRONIC CIRCUITS" listed under Group Number 289 of the Japan Standard Industrial Classification

(Given examples)

Resistors, capacitors, transformers, composite parts, audio parts, magnetic heads, micromotors (less than 3W), connectors, switches, relays, unit parts (switching power supplies, TV tuners, control units, etc.), other electronic parts (magnetic components (including powder and gold), silicon wafers (surface grounded), touch panel sensors, LED lamps, etc.)

(Changes from the 2011 I-O Tables)

Other flat-panel and semiconductor memory media classified under this sector in the 2011 I-O Tables are integrated into "3211-04, -041 Flat-panel and electron tubes" and "3299-01, -011 Storage media, respectively."

(Notes)

(1) Micromotors (less than 3W) are included in this sector.

(2) LED (light-emitting diode) lamps are included in this sector.

(3) Parts of semiconductor devices, integrated circuits, and electron tubes are included in this sector.

(4) Parts and accessories of wired communication equipment, radio communication equipment (except cellular telephone sets), radio and television receivers, and other communication equipment (except railway signal and safety appliances) are included in this sector.

(5) Electronic circuits classified under this sector in the 2005 I-O Tables were classified under a new sector, "3299-02, -021 Electronic circuits" in the 2011 I-O Tables.

(6) Silicon wafers (surface grounded) classified under "3241-09, -099 Other electrical devices and parts" in the 2005 I-O Tables were integrated into this sector in the 2011 I-O Tables.

33 Electrical machinery

Column Code	Row Code	Sector Name
3311-01		Rotating electrical equipment
	3311-011	Generators
	3311-012	Electric motors

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Generators, motors and other rotating electrical machinery" listed under Industry Number 2911of the Japan Standard Industrial Classification.

(Given examples)

Generators: Turbine generators (AC), engine generators (AC), other generators (DC generators, hydro-generators, motor-driven generators), and parts, fixtures, and accessories for other rotary electrical machines and generators

Motors: DC motors, single-phase induction motors, tri-phase induction motors, other AC motors (synchronous motors, brush motors), DC and AC mini-motors, other mini-motors (synchronous motors, stepping motors), and parts, fixtures, and accessories for motors

(Notes)

(1) Generators and electric motors for internal combustion en gines for motor vehicles and airplanes are included in "3311-05, -051 Electrical equipment for internal combustion engines."

(2) Super mini-motors (less than 3W) are included in "3299-09, -099 Miscellaneous electronic components"

Column Code	Row Code	Sector Name
3311-02	3311-021	Transformers and reactors

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Power and distribution transformers, except electronic appliances transformers" listed under Industry Number 2912 of the Japan Standard Industrial Classification.

(Given examples)

Standard transformers, non-standard transformers, transformers for special applications, instrument transformers, reactors, inductive voltage controllers, and parts, fixtures, and accessories for transformers

Column Code	Row Code	Sector Name
3311-03	3311-031	Relay switches and switchboards

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Electrical relay switches” listed under Industry Number 2913, and “Switchboards and electrical control equipment” listed under Industry Number 2914 of the Japan Standard Industrial Classification.

(Given examples)

Electrical relay switches (relays, circuit breakers, switchgear, programmable controllers), switchboards and electrical control equipment (power distribution boards, monitoring control panels, distribution panels, etc.) and parts, fixtures, and accessories for switchgear, distribution panels, and electrical control equipment

Column Code	Row Code	Sector Name
3311-04	3311-041	Wiring devices and supplies

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Wiring devices and supplies” listed under Industry Number 2915 of the Japan Standard Industrial Classification.

(Given examples)

Small switchgear, flasher unit, cord connectors, other wiring devices and supplies (lamp holders, panel boards, small wiring boxes, fuses, terminals, etc.)

Column Code	Row Code	Sector Name
3311-05	3311-051	Electrical equipment for internal combustion engines

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Auxiliary equipment for internal combustion engines” listed under Industry Number 2922 of the Japan Standard Industrial Classification.

(Given examples)

Battery generators, ignition motors, magnetic generators, ignition coils, distributors, spark plugs, and parts, fixtures, and accessories for internal combustion engines

(Notes)

Electrical equipment for internal combustion engines for automobiles, aircrafts, etc. are included in this sector.

Column Code	Row Code	Sector Name
3311-09	3311-099	Miscellaneous electrical devices and parts

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Electrical welding equipment” listed under Industry Number 2921, and “Miscellaneous industrial electrical apparatus, including those for vehicles and vessels” listed under Industry Number 2929 of the Japan Standard Industrial Classification.

(Given examples)

Electrical welding equipment (arc-welding machines, resistance welding machines, condensers, electric furnaces, industrial heating devices, power converters, silicon and selenium rectifiers, and parts, fixtures, and accessories for other industrial heavy electrical equipment

Column Code	Row Code	Sector Name
3321-01	3321-011	Household air-conditioners

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for “Air-conditioning and home comfort” excluding household air-conditioners, listed under Industry Number 2932 of the Japan Standard Industrial Classification.

(Given examples)

Household air-conditioners (window type, separate type, etc.), and parts, fixtures, and accessories for household air-conditioners

Column Code	Row Code	Sector Name
3321-02	3321-021	Household electric appliances (except air-conditioners)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for household air-conditioners specified in “HOUSEHOLD ELECTRIC APPLIANCES” listed under Group Number 293 of the Japan Standard Industrial Classification.

(Given examples)

Kitchen appliances (electric rice cookers, microwaves (including oven ranges and steam ranges), refrigerators, electromagnetic cookers (IH cookers, IH cooking heaters, etc.), other kitchen appliances (electric pots, dishwashers, dish dryers, etc.), ventilation and housing-related appliances (electric fans, electric ventilation fans, electric water heaters, humidifiers, dehumidifiers, air cleaners, etc.), apparel and sanitation-related appliances (electric irons, electric washers, electric vacuum cleaners, clothes dryers, etc.), other household electric appliances (electric foot warmers, barber and hairdressing tools (electric razors, hair dryers, etc.), electrically-heated bidet toilet seats, electric stoves, electric carpets, household therapeutic instruments), and parts, fixtures, and accessories for household electric appliances (excluding household air conditioners)

Column Code	Row Code	Sector Name
3331-01	3331-011	Applied electronic equipment

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "ELECTRONIC EQUIPMENT" listed under Group Number 296 of the Japan Standard Industrial Classification.

(Given examples)

X-ray devices (for medical use and industrial use), electronic devices for medical use, other applied electronic equipment (applied ultrasound devices, applied high frequency power devices, electronic microscopes, numerical control devices, Geiger counters, laser devices, applied magnetic probing devices, etc.) and parts, fixtures, and accessories for applied electronic equipment

(Notes)

Following the revision of the Japan Standard Industrial Classification, industrial recording and playback devices and video cameras (excluding for broadcasting), and their parts, fixtures and accessories classified under this sector in the 2005 I-O Tables were integrated into "3411-01, -011 Video equipment and digital camera" in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
3332-01	3332-011	Electric measuring instruments

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "ELECTRIC MEASURING INSTRUMENTS" listed under Group Number 297 of the Japan Standard Industrial Classification.

(Given examples)

Electric meters (watt-hour meters, ammeters, and voltmeters), electric measuring instruments (voltage standards, ammeter standards, and circuit testers), semiconductor and IC testers, industrial process control instruments, medical instruments, and parts, fixtures, and accessories for electric measuring instruments

Column Code	Row Code	Sector Name
3399-01	3399-011	Electric bulbs

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Electric bulbs" listed under Industry Number 2941 of the Japan Standard Industrial Classification.

(Given examples)

General purpose light bulbs, miniature lamps, Xmas tree light bulbs, automobile lamps, infra-red lamps, flash bulbs for photography, pilot lamps, halogen lamps, fluorescent lamps, mercury lamps, UV lamps, sterilizer lamps, neon tubes, arc lamps, and HID lamps

(Notes)

(1) LED (light-emitting diode) lamps are included in "3299-09, -099 Miscellaneous electronic components."

(2) Parts for Electric bulbs are classified under the sector "3399-09, -099 Miscellaneous electrical devices and parts.

Column Code	Row Code	Sector Name
3399-02	3399-021	Electric lighting fixtures and apparatus

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Electric lighting fixtures" listed under Industry Number 2942 of the Japan Standard Industrial Classification.

(Given examples)

Incandescent lamps and fixtures, fluorescent lamps, mercury lamps, lamps with generators, portable searchlights, flashlights, UV sterilizers, sodium lamps, car blinkers, and parts, fixtures, and accessories for electric lighting fixtures and apparatus

Column Code	Row Code	Sector Name
3399-03	3399-031	Batteries

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "PRIMARY BATTERIES (DRY AND WET)" listed under Group Number 295 of the Japan Standard Industrial Classification.

(Given examples)

Storage batteries (lead, alkali, lithium-ion), primary batteries (manganese dry cells, alkali-manganese dry cells, silver oxide cells, lithium-ion cells), parts, fixtures, and accessories for battery cells

Column Code	Row Code	Sector Name
3399-09	3399-099	Miscellaneous electrical devices and parts

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "MISCELLANEOUS ELECTRICAL MACHINERY EQUIPMENT AND SUPPLIES" listed under Group Number 299 of the Japan Standard Industrial Classification.

(Given examples)

Lead wires, solar cell module, electrical devices and parts, n.e.c. (lamp sockets, tungsten wire for electrical lamps and electronics, molybdenum, permanent magnets, electrical contacts, lead frames, etc.)

(Notes)

(1) Parts for electric bulbs are included in this sector.

(2) Silicon wafers (surface grounded), which were classified in this sector in the 2005 I-O tables, were integrated into "3299-09, -099 Miscellaneous electronic components."

34 Information and communication electronics equipment

Column Code	Row Code	Sector Name
3411-01	3411-011	Wired communication equipment

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Communication equipment wired" listed under Industry Number 3011 of the Japan Standard Industrial Classification.

(Given examples)

Telephone (wired) devices (telephone machines, switching equipment, intercom systems, telephone applied devices, etc.), telecommunication and image (wired) devices (facsimile machines, telephone systems for teleconferences, etc.), carrier devices (digital transmission equipment, modulator-demodulators (modem), etc.)

(Notes)

(1) Parts and accessories of wired communication equipment are classified under the sector "3299-09, -099 Miscellaneous electronic components"

(2) Cellular phones and portable handy phones (PHS) are classified under the sector "3411-02, -021 Cellular phones." However, cordless handset of a telephone machine or a facsimile machine that are available for independent use as portable handy phones (PHS) shall also be classified in this sector, while a PHS unit that is available as a slave unit of a telephone machine shall be classified under the sector "3411-02, -021 Cellular phones"

Column Code	Row Code	Sector Name
3411-02	3411-021	Mobile phones

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Mobile phone and PHS" listed under Industry Number 3012 of the Japan Standard Industrial Classification.

(Given examples)

Cellular phones, portable handy phones (PHS)

Column Code	Row Code	Sector Name
3411-03	3411-031	Radio communication equipment (except Mobile phone)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Radio communication equipment" listed under Industry Number 3013 of the Japan Standard Industrial Classification.

(Given examples)

Radio and television broadcasting equipment, fixed radio communication equipment, other mobile radio communication equipment, radio communication equipment for cellular phones (excluding cellular phones and portable handy phones (PHS)), applied radio equipment (GPS systems, car navigation systems, ETC systems, etc.), and other radio communication equipment (personal radio communication equipment, etc.)

(Notes)

Parts and accessories of radio communication equipment (except cellular telephone sets) are included in "3299-09, -099 Miscellaneous electronic components."

Column Code	Row Code	Sector Name
3411-04	3411-041	Radio and television sets

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Radio and television set receivers" listed under Industry Number 3014 of the Japan Standard Industrial Classification.

(Given examples)

Radio receivers, television receivers (including recording/playback integrated type, liquid crystal panel type, plasma display panel type, Braun tube type, projection type [integrated with a receiver], etc.)

(Notes)

Parts and accessories for radio and television sets are classified in "3299-09, -099 Miscellaneous electronic components."

Column Code	Row Code	Sector Name
3411-09	3411-099	Miscellaneous communication equipment

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Traffic signals, railway signals and safety appliances" listed under Industry Number 3015, and "Miscellaneous communication equipment and related products" listed under Industry Number 3019 of the Japan Standard Industrial Classification.

(Given examples)

Traffic signal safety devices and their parts, fixtures, and accessories (traffic signals, mechanical signals, electric rail switchers, mechanical rail switchers, etc.), fire alarms, security alarms, lighting signals, communication signals, and gas alarms

(Notes)

Parts and accessories for other communication equipment (except railway signal and safety appliances) are included in "3299-09, -099 Miscellaneous electronic components."

Column Code	Row Code	Sector Name
3412-01	3412-011	Video equipment and digital camera

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Video equipment" listed under Industry Number 3021, and "Digital camera" listed under Industry Number 3022 of the Japan Standard Industrial Classification.

(Given examples)

Recording and playback devices (DVD recorders, etc.), video cameras (excluding for broadcasting), digital cameras, and parts, fixtures, and accessories for video equipment and digital camera

(Notes)

Following the revision of the Japan Standard Industrial Classification, industrial recording and playback devices and video cameras (excluding for broadcasting), and their parts, fixtures, and accessories classified under "3221-01, -011 Applied electronic equipment" in the 2005 I-O Tables were integrated into this sector in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
3412-02	3412-021	Electric audio equipment

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Electric audio equipment"

listed under Industry Number 3023 of the Japan Standard Industrial Classification.

(Given examples)

Stereo systems, car stereo systems, digital audio disc players, amps for high fidelity, speaker systems for high fidelity and cars, hearing aids, other electrical acoustic equipment (tape recorders, IC recorders, etc.), speaker systems, microphones, earphones, acoustic pickups, etc. (finished products), parts, fixtures, and accessories for electrical acoustic equipment

Column Code	Row Code	Sector Name
3421-01	3421-011	Personal Computers

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Personal computer" listed under Industry Number 3032 of the Japan Standard Industrial Classification.

(Given examples)

Personal computers (desktops, notebooks, tablets, etc.) and parts, fixtures and accessories for personal computers

Column Code	Row Code	Sector Name
3421-02	3421-021	Electronic computing equipment (except personal computers)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Computer, except personal computer" listed under Industry Number 3031 of the Japan Standard Industrial Classification.

(Given examples)

General purpose computers, mid-range computers (office computers, workstations, etc.), and parts, fixtures, and accessories for electronic computing equipment (excluding personal computers)

Column Code	Row Code	Sector Name
3421-03	3421-031	Electronic computing equipment (accessory equipment)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "External storages" listed under Industry Number 3033, "Printer" listed under Industry Number 3034, "Display unit" listed under Industry Number 3035, and "Miscellaneous peripheral equipment" listed under Industry Number 3039 of the Japan Standard Industrial Classification.

(Given examples)

External storage equipment (magnetic disc devices, optical disc devices, disc allay devices, etc.), printer devices (serial printers, line printers, drafting machine (plotter), etc.), display devices (displays (for electronic computing equipment), etc.), other accessory equipment (banking terminals, other terminals, and other input-output devices, etc.) and parts, fixtures, and accessories of electronic computer's accessory equipment

35 Transportation equipment

Column Code	Row Code	Sector Name
3511-01	3511-011	Passenger motor cars

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for passenger motor cars specified in "Motor vehicles, including motorcycles" listed under Industry Number 3111 of the Japan Standard Industrial Classification.

(Given examples)

Compact cars, small cars, sedans

(Notes)

Vehicle chassis or CKD (Completely Knocked Down) vehicles (to be exported unassembled, where the shipping value per vehicle is over 60% of the total composite parts of an assembled vehicle [on FOB price basis]), are classified under this sector.

Column Code	Row Code	Sector Name
3521-01	3521-011	Trucks, buses and miscellaneous cars

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Motor vehicles, including motorcycles" but excluding passenger cars and motorcycles listed under Industry Number 3111, and the production activities for "Motor vehicles bodies and trailers" listed under Industry Number 3112 of the Japan Standard Industrial Classification.

(Given examples)

Small buses, large buses, light trucks, small trucks (gasoline or diesel), trucks (gasoline or diesel), trailers, special purpose vehicles, trailers, small truck bodies, truck bodies, special purpose vehicle bodies

(Notes)

Vehicle chassis or CKD (Completely Knocked Down) vehicles (to be exported unassembled, where the shipping value per vehicle is over 60% of the total composite parts of an assembled vehicle [on FOB price basis]), are classified under this sector.

Column Code	Row Code	Sector Name
3522-01	3522-011	Two-wheel motor vehicles

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for two-wheel motor vehicles specified in "Motor vehicles, including motorcycles" listed under Industry Number 3111 of the Japan Standard Industrial Classification.

(Notes)

Bicycles with engines, motor scooters, vehicles with side-cars, or CKD vehicles (to be exported unassembled, where the shipping value per vehicle is over 60% of the total composite parts of an assembled vehicle [on FOB price basis]), are classified under this sector.

Column Code	Row Code	Sector Name
3531-01	3531-011	Internal combustion engines for motor vehicles

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for internal combustion engines for motor vehicles and related parts specified in "Motor vehicles parts and accessories" listed under Industry Number 3113 of the Japan Standard Industrial Classification.

(Given examples)

Gasoline engines for motor vehicles, diesel engines for motor vehicles, internal combustion engines for motorcycles and motor scooters, and parts, fixtures, and accessories for internal combustion engines for motor vehicles (radiators, oil strainers, oil filters, pistons, inlet valves, exhaust valves, carburetors, air cleaners, and fuel injection devices)

Column Code	Row Code	Sector Name
3531-02	3531-021	Motor vehicle parts and accessories

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for internal combustion engines and related parts specified in "Motor vehicles parts and accessories" but excluding internal combustion engines for motor vehicles and related parts, listed under Industry Number 3113 of the Japan Standard Industrial Classification.

(Given examples)

Parts for driving, transmitting, and steering devices, parts for suspension and braking devices, parts for chassis and bodies, car air-conditioners, car heaters, car seats, knocked-down parts (for passenger cars, busses, trucks, and motorcycles)

(Notes)

Sets of knocked-down parts (to be exported unassembled, where the shipping value per vehicle is under 60% of the total composite parts of an assembled vehicle [on FOB price basis]), are classified under this sector.

Column Code	Row Code	Sector Name
3541-01	3541-011	Steel ships

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The production activities of steel shipbuilding specified in "Shipbuilding and repairing" listed under Industry Number 3131 and "Hull blocks" listed under Industry Number 3132 of the Japan Standard Industrial Classification.

(Given examples)

Cargo vessels, cargo and passenger vessels, passenger vessels, automobile carrier vessels, oil tankers, fishing vessels

(Notes)

(1) Hull manufacturing is the production activities for own sector. Therefore, its production value will, in principle, not be counted in but is treated as one of ship building process.

(2) The refurbishing of steel vessels is included in this sector.

Column Code	Row Code	Sector Name
3541-02	3541-021	Miscellaneous Ships (except steel ships)

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The production activities related to manufacturing of wooden ships specified in "Shipbuilding and repairing" listed under Industry Number 3131 and production activities related to shipbuilding specified in "Small watercraft building and repairing" listed under Industry Number 3133 of the Japan Standard Industrial Classification.

(Given examples)

Wooden vessels, wooden boats, plastic boats, metal fabricated boats

(Notes)

(1) Vessels made primarily from reinforced plastic or aluminum (less than a gross weight of 20 tons) are classified under this sector.

(2) All related refurbishing and repairing are classified under this sector.

Column Code	Row Code	Sector Name
3541-03	3541-031	Internal combustion engines for vessels

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Marine engines" listed under Industry Number 3134 of the Japan Standard Industrial Classification.

(Given examples)

Diesel engines for vessels, hot-bulb engines for vessels, steam engines for vessels, electrical ignition engines for vessels, gas turbines for vessels, steam turbines for vessels, and parts, fixtures, and accessories for vessel engines

Column Code	Row Code	Sector Name
3541-10	3541-101	Repair of ships

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The repair activities specified in "Shipbuilding and repairing" listed under Industry Number 3131 and "Small watercraft building and repairing" listed under Industry Number 3133 of the Japan Standard Industrial Classification.

(Notes)

(1) Repair work undertaken by the users of the vessels is classified under this sector.

(2) Refurbishing is not included in this sector but is included in either "3541-01, -011 Steel ships" or "3541-02, -021 Miscellaneous Ships (except steel ships).

Column Code	Row Code	Sector Name
3591-01	3591-011	Rolling stock

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The production and repair activities for "RAILROAD EQUIPMENT AND PARTS" listed under Group Number 312 of the Japan Standard Industrial Classification.

(Given examples)

Locomotives for railways and tramcars, passenger carriages, cargo trains, special purpose trains, related parts

(Notes)

(1) Production and repair activities carried out by railways are classified under this sector

(2) Signal safety devices are not included in this sector but classified under "3412-09, -099 Miscellaneous communication equipment"

Column Code	Row Code	Sector Name
3591-10	3591-101	Repair of rolling stock

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The repair activities for "Train's coach-cars" listed under Industry Number 3121 of the Japan Standard Industrial Classification.

(Notes)

(1) Repair work for rolling stock is not classified under this sector but included in "3591-01, -011 Rolling stock"

(2) Repair work carried out by railways is included in this sector.

Column Code	Row Code	Sector Name
3592-01	3592-011	Aircrafts

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "AIRCRAFT AND PARTS" listed under Group Number 314 of the Japan Standard Industrial Classification.

(Given examples)

Aircraft (airplanes including turbojets, turboprops, etc.), helicopters, other aircraft (gliders, airships, etc.), engines for aircrafts (turbojet engines, turbo shaft engines, etc.), and other aircraft related parts and accessory devices (propellers, rotor blades, main wings, bodies, landing gear, aircraft steering training facilities, etc.)

Column Code	Row Code	Sector Name
3592-10	3592-101	Repair of aircrafts

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The repair activities for "AIRCRAFT AND PARTS" listed under Group Number 314 and aircraft maintenance performed at airports, etc. specified in "MACHINE REPAIR SHOPS, EXCEPT ELECTRICAL MACHINERY, APPARATUS, APPLIANCES AND SUPPLIES" listed under Group Number 901 of the Japan Standard Industrial Classification.

Column Code	Row Code	Sector Name
3599-01	3599-011	Bicycles

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Bicycles and parts" listed under Industry Number 3191 of the Japan Standard Industrial Classification.

(Given examples)

Finished bicycles (racing bicycles, children's bicycles, infant bicycles, mini bicycles, mountain bicycles, motor-assisted bicycles, and special purpose bicycles), wheelchairs, bicycle frames, and parts, fixtures, and accessories for bicycles

(Notes)

Wheelchairs (electric) are included in the column sector "3599-09 Miscellaneous transport equipment" and row sector "3599-099 Transport equipment, n.e.c."

Column Code	Row Code	Sector Name
3599-09		Miscellaneous transport equipment
	3599-091	Transport equipment for industrial use
	3599-099	Transport equipment, n.e.c.

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "INDUSTRIAL TRUCKS AND PARTS AND ACCESSORIES" listed under Group Number 315 and for "Transportation equipment, n.e.c." listed under Industry Number 3199 of the Japan Standard Industrial

Classification.

(Given examples)

Transport vehicles for industry: Forklift trucks, fixed platform truck (powered by batteries or internal combustion engines, and motor-driven transport vehicles, etc.), industrial locomotives, industrial carriages, straddle carriers, industrial trailers, pallet trucks, shovel loaders (except for construction use) and parts, fixtures, and accessories for industrial transport vehicles

Transport equipment, n.e.c.: Aircraft and spacecraft (rockets, satellites, and spaceship, etc), and parts, fixtures, and accessories for aircraft and spacecraft, other transport vehicles not elsewhere classified (transport carts, carts, shopping carts, golf cars, and golf carts, wheelchairs (electric), etc), and parts, fixtures, and accessories for other transport vehicles not elsewhere classified

(Notes)

Wheelchairs (manual) are included in "3599-01, -011 Bicycles"

39 Miscellaneous manufacturing products

Column Code	Row Code	Sector Name
1911-01	1911-011	Printing, plate making and book binding

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "PRINTING" listed under Group Number 151, "PLATE MAKING FOR PRINTING" listed under Group Number 152, "BOOKBINDING AND FINISHING" listed under Group Number 153, and "SERVICES RELATED TO PRINTING" listed under Group Number 159 of the Japan Standard Industrial Classification, as well as the activities conducted by the National Printing Bureau for printing, plate-making, and book-binding.

(Given examples)

Printing (offset printing [planography printing, digital printing, etc.], relief [anastatic] printing, intaglio printing [screen printing, photogravure, etc.], gazette printing, currency printing, special printing on non-paper), plate-making (photoengraving, photomask, printing types, stereotypes, copper intaglio printing, wood engraving printing, etc.), bookbinding, printed matter, other services related to printing trade, advertising revenue of the National Printing Bureau.

(Notes)

Revenue of trade margins from general printing is not included in the production value because most of the activities are commissioned from similar businesses.

Column Code	Row Code	Sector Name
2311-01	2311-011	Leather footwear

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "CUT STOCK AND FINDINGS FOR LEATHER FOOTWEAR" listed under Group Number 203 and "LEATHER FOOTWEAR" listed under Group Number 204 of the Japan Standard Industrial Classification.

(Given examples)

Leather shoes (men's over 23 cm, women's and children's leather shoes, athletic leather shoes [mountaineering shoes, skating shoes, spike shoes, golfing shoes, etc.], work shoes [safety shoes, anti-static shoes, acid-proof shoes, etc.], other leather shoes [partly leather shoes, etc.], other leather footwear [zori

slippers, slippers, sandals, etc.]) and materials and accessories for leather footwear (uppers, soles, heels, etc.)

Column Code	Row Code	Sector Name
2312-01		Leather tanning, leather products, and fur skins (except leather footwear)
	2312-011	Leather and fur skins
	2312-012	Baggage, handbags, small leather cases, and miscellaneous leather products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "LEATHER TANNING AND FINISHING" listed under Group Number 201; "MECHANICAL AND INDUSTRIAL LEATHER PRODUCTS, EXCEPT GLOVES AND MITTENS" listed under Group Number 202; "LEATHER GLOVES AND MITTENS" listed under Group Number 205; "BAGGAGE" listed under Group Number 206; "HANDBAGS AND SMALL CASES" listed under Group Number 207; "FUR SKINS" listed under Group Number 208; and "MISCELLANEOUS TANNING LEATHER PRODUCTS" listed under Group Number 209 of the Japan Standard Industrial Classification.

(Given examples)

Leathers and fur skins: Leathers (Cowhide uppers, ox hide uppers, cowhide soles, coated cattle leather, other cattle leather, horsehide, pigskin, goat and sheep skin, other coated leather (crocodile, lizard, and snake skin), fur (processed but not finished)

Luggage, handbags, small cases, and miscellaneous leather products: Industrial leather products (industrial leather belts, leather packing, gaskets, etc.), leather gloves (for dress, work, and sport, and including those of synthetic leather), luggage (regardless of materials; leather travel bags, leather brief cases, school bags, and school satchels, plastic luggage, and synthetic leather cases, etc.), bags (wallet, purses, shopping bags, etc.), handbags (regardless of materials), miscellaneous leather products (dress leather belts, saddles, spurs, wristwatch bands, etc.)

(Changes from the 2011 I-O Tables)

"2312-01 Leather and fur skins" and "2312-02 Luggage, handbags, small leather cases and miscellaneous leather products" in the 2011 I-O Tables are integrated into "2312-01, Leather, leather products, and fur skins (except leather footwear)."

(Notes)

Fur clothing, coated leather clothing, and fur apparel accessories (coats, mufflers, and fur accessories) are classified under "1522-09, -099 Miscellaneous wearing apparel and clothing accessories" and leather athletic goods (like gloves) are classified under "3911-02, -021 Sporting and athletic goods"

Column Code	Row Code	Sector Name
3911-01	3911-011	Toys and games

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Games and toys, except dolls" listed under Industry Number 3251, and "Dolls" listed under Industry Number 3252 of the Japan Standard Industrial Classification.

(Given examples)

Entertainment items and toys (cards, hanafuda cards, igo game items, shogi game items, mahjong game items, game boards, electronic toys [television games for home use, portable electronic games, etc.], metallic toys, plastic toys [model kits, air-filled vinyl toys, children's carriage vehicles {i.e. walkers for infants, baby carriages, and tricycles}, etc.], stuffed animal toys, wooden toys, etc.), dolls (Japanese, western-style, stuffed, sekku, hina, etc.), and parts and accessories for toys

(Notes)

Game software recording media (CDs, DVDs, cassettes, etc.) are included in "3919-06, -061 Audio and video records, other information recording media"

Column Code	Row Code	Sector Name
3911-02	3911-021	Sporting and athletic goods

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Sporting and athletic goods" listed under Industry Number 3253 of the Japan Standard Industrial Classification.

(Given examples)

Baseball gear, softball gear, basketball gear, volleyball gear, rugby gear, soccer gear, tennis gear, ping-pong gear, badminton gear, golf gear, hockey gear, ski gear, water-ski gear, skating gear,

track and field gear, gymnastics gear, fishing gear and accessories, swings, slides, air-guns, hunting guns, Japanese fencing gear, hang-gliding gear, and parts and accessories for sporting goods

(Notes)

Hats, uniforms, shoes, belts, helmets, and so forth are not classified under this sector but are included in their respective sectors.

Column Code	Row Code	Sector Name
3919-01	3919-011	Jewelry and adornments

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "PRECIOUS METAL PRODUCTS, INCLUDING JEWELS" listed under Group Number 321 and "COSTUME JEWELRY, COSTUME ACCESSORIES, BUTTONS AND RELATED PRODUCTS, EXCEPT PRECIOUS METALS AND JEWELRY" listed under Group Number 322 of the Japan Standard Industrial Classification; production of the metallic art objects by the Japan Mint is included in this sector

(Given examples)

Costume jewelry, costume accessories (precious metals [gold, silver, platinum, etc.] and jewelry [natural jewelry, pearls, etc.] products, tin and antimony products, etc.), (necklaces, bracelets, rings, earrings, broaches, lockets, cuff links, etc.), other jewelry, accessories, and precious metal products (powder compacts, badges, buckles, medals, combs, handy mirrors, jewel boxes, accessory cases, religious tools, trophies, decorative medals, precious metal cigar cases, western tableware such as precious metal knives, forks, spoons and dishes), artificial flowers, decorative feathers, buttons, needles, pins, hooks, snaps, and related products (sewing needles, machine needles, zips, snaps, hooks, clips, pushpins, hook and loop fasteners, safety pins, etc.), wigs, kamoji, and parts and accessories for jewelry and accessories

(Notes)

Japanese fans, Japanese performance fans, paper lanterns, umbrellas, Japanese umbrellas, and cigars, pipes (except for precious metals and jewelry products) are classified under "3919-09, -099 Miscellaneous manufacturing products."

Column Code	Row Code	Sector Name
3919-02	3919-021	Watches and clocks

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "WATCHES, CLOCKS, CLOCKWORK-OPERATED DEVICES AND PARTS" listed under Group Number 323 of the Japan Standard Industrial Classification.

(Given examples)

Watches (including movements; mechanical watches, battery-operated watches), clocks (including movements; mechanical clocks, clocks, alarm clocks, wall clocks, and instrument panel clocks), other watches and clocks (stop watches, timer watches, metronomes), watch and clock parts (dial plates, springs, gears, and screws)

Column Code	Row Code	Sector Name
3919-03	3919-031	Musical instruments

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "MUSICAL INSTRUMENTS" listed under Group Number 324 of the Japan Standard Industrial Classification.

(Given examples)

Pianos, guitars, electronic guitars, electronic musical instruments ("Electone", synthesizers, electronic keyboards, electronic pianos, etc.), harmonicas, accordions, pipe instruments, stringed instruments, drums, shamisen, koto, shakuhachi, music box movements, and parts, fixtures, and accessories for musical instruments

Column Code	Row Code	Sector Name
3919-04	3919-041	Stationery

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "PENS, LEAD PENCILS, PAINTING MATERIALS AND STATIONERY" listed under Group Number 326 of the Japan Standard Industrial Classification.

(Given examples)

Fountain pens, pens and lead pencils (fountain pens, refillable lead pencils, ball-point pens, marking pens, pencils, lead for refillable lead pencils, etc.), brushes and painting materials (water color tubes, crayons, pastels, brushes, paint brushes, oil paint tubes, sketchbooks, canvas, drawing plates, drawing clothes, poster colors, etc.), other stationery (seals, seal pads, stamps, stamp pads, rulers, compasses, drafting boards, glue for offices and industries, abacuses, staplers, pencil boxes, hole punchers, pencil sharpeners, etc.) and parts and accessories for writing instruments and stationery

Column Code	Row Code	Sector Name
3919-05	3919-051	"Tatami" (straw matting) and straw products"

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The production activities for "Straw, panama hats and straw goods" listed under Industry Number 3281 and "Tatami" mats (straw-mats)" listed under Industry Number 3282 of the Japan Standard Industrial Classification.

(Given examples)

Tatami mats, tatami flooring, tatami floor coverings, goza (thin woven-straw floorings), mushiro (woven-straw wall hangings), hana-mushiro (woven-straw flower patterned wall hangings), kamasu, straw, rope, straw hats, woven-rope hats

Column Code	Row Code	Sector Name
3919-06	3919-061	Audio and video records, other information recording media

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for "Information recording materials, except newspapers, books, other printed products, etc." listed under Industry Number 3296 of the Japan Standard Industrial Classification.

(Given examples)

Audio information recording media (audio discs, audiotapes, etc.), video information recording media (videodiscs, videotapes, etc.), game software recording media (CDs, DVDs, cassettes, etc.), computer software recording media (CDs, DVDs, etc.), prepaid cards

(Notes)

Video software, prepaid cards, recording media for television games (CDs, DVDs, cassettes, etc.) are included in this sector, and unrecorded media (semiconductor memories, optical disks, magnetic tapes, etc.) are included in "3299-01, -011 Storage media."

Game software, video software, and music software are production activities of the column sector "5931-01 Information services" and row sectors "5931-011 Computer programming and miscellaneous software services" and "5951-01, -011 Video picture, sound information, character information production," respectively. Only production activities of media are included in this sector, and not the value of information.

Column Code	Row Code	Sector Name
3919-09	3919-099	Miscellaneous manufacturing products

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "LACQUER WARE" listed under 327, "Fans and lanterns (Japanese style)" listed under Industry Number 3283,"Brooms and brushes" listed under Industry Number 3284, "Smoking accessories and supplies, except precious metals and jewelry" listed under Industry Number 3285, "Miscellaneous sundry goods" listed under Industry Number 3289, "Fireworks" listed under Industry Number 3291, "Signboards and signs" listed under Industry Number 3292, "Pallets" listed under Industry Number 3293, "Models and patterns" listed under Industry Number 3294, "Pattern manufactured of industrial use" listed under Industry Number 3295, "Spectacles, including frames" listed under Industry Number 3297, and "Miscellaneous manufacturing industries, n.e.c." listed under Industry Number 3299 of the Japan Standard Industrial Classification.

(Given examples)

Japanese lacquer ware (furniture, kitchen utensils, and tableware, etc.), Japanese fans, Japanese performance fans, paper lanterns, brooms, brushes (toothbrushes, cosmetic brushes, scrubbers, brooms, dusters, mops, etc.), smoking accessories and supplies (cigarette lighters, cigarette filters, etc.), miscellaneous sundry goods (umbrellas, matches, thermos bottles, etc.), fireworks (incl. toy models), signboards, signboard equipment, (signboards, signboard equipment, displays, etc.), pallets (for cargo handling and transportation), models (mannequins, body stands, globes, food stuffs, etc.), industrial models (incl. wooden models), eyeglasses incl. frames (eyeglasses, glasses frames,

glasses lenses incl. contact lenses, parts of eyeglasses, etc.), miscellaneous products, n.e.c. (textile wall components, scents, safety and protection gear, life-saving equipment, prefabricated houses, room units, lamp shades, funeral accessories, ogalite, shoe inserts excluding leather, canes, etc.)

(Notes)

(1) “Prepaid cards” are included in “3919-06, -061 Audio and video records, other information recording media,” artificial flowers, decoration feathers, needles, pins, hooks, fasteners are included in “3919-01, -011 Jewelry and adornments” and straw hats, straw knitted hats are included in “3919-05, -051 "Tatami" (straw matting) and straw products.”

(2) Following the revision of the Japan Standard Industrial Classification, eyeglasses and eyeglass frames classified under “3711-09 Other photographic and optical instruments” in the 2005 I-O Tables were integrated into this sector in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
3921-01	3921-011	Reuse and recycling

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The recovery and processing activities for recyclable materials such as iron scrap. “RECYCLED MATERIAL” listed under Group Number 536 of the Japan Standard Industrial Classification is classified under this sector as its activities falls under recycling activities. This sector becomes a bridging sector for by-products in addition to scrap. This sector includes iron scrap, non-ferrous metal scrap, plastic scrap, glass scrap, and waste paper.

(Given examples)

Iron scrap, non-ferrous metal scrap, plastic scrap, glass scrap, waste paper, cotton fiber waste, wool waste, animal hair waste, plaster, blast furnace slag, fly ash, mineral waste, sulfur, by-produced silkworm chrysalis, fruit juice pulp, scrap meat, vegetable waste, soy sauce lees, coffee lees, wood chips, ammonium sulfate, ammonium chloride, silicic acid calcium, LPG, coke, coalbed gas, blast furnace gas, converter gas, electric furnace gas, etc.

(Notes)

In the 2000 I-O Tables, scraps and by-products were input into this sector and the output value of this sector was included in the production value, but since the 2005 I-O Tables, scraps and by-products are directly output to the input sector without bypassing this sector, and only expenditures are recorded in this sector.

The recyclable materials wholesale activities in “5111-01, -011 Wholesale trade” are the recovery activities, and are classified under this sector.

Scraps and by-products for which the “lump method” or “transfer method” are applied are not handled in this sector.

41 Construction

Column Code	Row Code	Sector Name
4111-01	4111-011	Residential construction (wooden)

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities related to the building of new wooden houses, expanding existing houses, and refurbishing houses; houses are stipulated as being buildings that are used exclusively for residential use or as (living quarters of) "combined buildings for living and commercial use." The key component, referred to as the "key building component," stipulated in Article 2 of the Building Standards Law (the same definition applies hereafter), of the aforementioned buildings (as defined in Article 2 of the same Law and also applied hereafter) shall be wood.

(Given examples)

Housing building (wooden), living quarters of combined housing for both living and commercial use (wooden)

(Notes)

(1) The drawing of plans for buildings may be carried out by the house owners themselves, by professional design engineers, or by sub-contractors of building contractors. The activities conducted by professional design engineers are classified as inputs from the sector "6699-02, -021 Civil engineering and construction services" on a lump sum basis.

The same shall apply to all sectors in "41 Construction" of the aggregated sector classification, except for the sector "4111-01, -011 Residential construction (wooden)"

(2) "Building new houses" refers to the construction of buildings on new sites where no buildings exist.

"Expansion" refers to construction related to existing buildings, thereby increasing the floor space.

"Refurbishment" refers to the construction of new buildings including the elimination, wholly or partially, of existing buildings, with usage, size, and structure remaining generally similar to that of the pre-existing construction.

(3) Activities related to regular repairs for buildings (housing and non-housing) are classified under the sector "4121-01, -011 Repair of construction"

Column Code	Row Code	Sector Name
4111-02	4111-021	Residential construction (non-wooden)

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities related to constructing new buildings, expanding existing buildings, and refurbishing buildings; the buildings referred herein are those buildings that are used exclusively for living or as (living quarters of) "combined buildings for living and industry use." The key building component of the aforementioned buildings shall be non-wooden materials.

(Given examples)

Housing buildings (non-wooden), living quarters of combined housing buildings for both residential and industry use (non-wooden)

(Notes)

The structural classification of non-wooden buildings is as following:

Steel framed and reinforced concrete structure (SRC structure): This refers to buildings with an integral steel frame and reinforced concrete structure. Key building components are defined in Point 5, Article 2 of the Building Standards Law. (The same applies hereafter.)

Reinforced concrete structure (RC structure): This refers to buildings with an integral structure of reinforced concrete.

Iron structure (S structure): This refers to buildings with frames of iron or other metals (including reinforced iron bars with "ri-pu-ra-su" treatment and light steel frame structures).

"Concrete block structure (CB structure): This refers to buildings built with concrete blocks reinforced by iron bars (including those with exterior walls of concrete block).

Others: This refers to buildings built with other structures, such as stone, bricks, concrete without reinforcing bars, concrete blocks without reinforcing bars, and other structures that are not elsewhere classified

Column Code	Row Code	Sector Name
4112-01	4112-011	Nonresidential construction (wooden)

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities of constructing new buildings, expanding

existing buildings, and refurbishing buildings of wood, except those specified in "4111-01, -011 Residential construction (wooden)"

(Given examples)

Factory and warehouse buildings, office buildings

Column Code	Row Code	Sector Name
4112-02	4112-021	Nonresidential construction (non-wooden)

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities of constructing new buildings, expanding existing buildings, and refurbishing buildings of non-wooden materials, except those specified in "4111-02, -021 Residential construction (nonwooden)"

(Given examples)

Factory and warehouse buildings, office buildings, school buildings, and hospital and store buildings

(Notes)

The structural classification of "non-wooden" buildings is the same as that of "4111-02, -021 Residential construction (nonwooden)"

Column Code	Row Code	Sector Name
4121-01	4121-011	Repair of construction

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

(1) The regular repair work of buildings (housing and non-housings buildings) and civil construction (railways, electric power, telecommunication, water supply, and drainage facilities, gas tanks, parking lots, and golf links). Output is considered to be building repairs and civil construction repairs.

(2) However, the following are not considered to be activities of this sector, but those of corresponding sectors.

1 Large-scale modernization causing a significant increase in the life expectancy of the construction

2 Maintenance and repair work relating to public works, and restoration work following natural disaster

3 Replacement and repair work relating to rails, power, and signal facilities, power transmission and distribution facilities, and transmission and telecommunication cables

(Notes)

Renovation of buildings, both residential and nonresidential, involving the enhancement of the functionality and/or life expectancy is recorded as output in the "Gross domestic fixed capital formation" sector, and regular repair and maintenance work is recorded as intermediate consumption.

Column Code	Row Code	Sector Name
4131-01	4131-011	Public construction of roads

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The following public works, including new construction as well as maintenance and repair work

(1) Construction of roads and streets implemented by the government and by local governments

(2) Toll road businesses conducted by the Japan Highway Public Corporation, Metropolitan Expressway Public Corporation, Hanshin Expressway Public Corporation, Honshu-Shikoku Bridge Authority, and local governments

(Given examples)

Roads, streets, toll roads, land re-adjustment projects

(Notes)

(1) Small-scale maintenance and repair work on roads and streets may be considered as classified in the sector "4121-01, -011 Repair of construction." However, those are treated, as before, as public works from a chronological perspective.

(2) The activities of the sectors "4131-01, -011 Public construction of roads" "4131-02, -021 Public construction of rivers, drainages and miscellaneous public construction," and "4131-03, -031 Agricultural public construction" may be considered more or less as established items rather than as activities. For example, the activities of road construction are not included in this sector in their entirety but divided between the government, local governments, East Nippon Expressway Company Limited, Metropolitan Expressway Public Corp., Central Nippon Expressway Company Limited, West Nippon Expressway Company Limited, Hanshin Expressway Public Corp., and Honshu-Shikoku Bridge Authority. Construction activities by other entities are classified in a separate sector, "4191-09, -099 Miscellaneous civil engineering and construction"

Column Code	Row Code	Sector Name
4131-02	4131-021	Public construction of rivers, drainages and miscellaneous public construction

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The following public works, including maintenance and repair work, in addition to new construction

(1) Rivers: Activities implemented by the government and local governments relating to rivers, soil erosion prevention and sediment control, and the sea shore, as well as activities implemented by the Water Resources Development Public Corporation

(2) Urban planning: Activities implemented by the government and local governments relating to drainage, parks, waste treatment facilities, etc.

(3) Ports and harbors: Activities implemented by the government and local governments relating to ports and fishing harbors

(4) Airports: Activities implemented by the government and local governments as well as by Narita Airport Authority, New Kansai International Airport Co., Ltd., and the Central Japan International Airport Co., Ltd. relating to airports

(5) Reconstruction after natural disaster: Reconstruction activities related to natural disasters, mine pollution, and urban disasters, all implemented by the government and local governments for the aforementioned, and for "4131-01 Public construction of roads."

(6) Offshore fishing-bed preparation: Activities implemented by the government and local governments relating to offshore fishing-bed preparation

(Given examples)

River restoration, the overall development of rivers, soil erosion prevention and sediment control, seashore, drainage, waste treatment facilities, park, port, fishing harbor, airport, reconstruction after disaster

(Notes)

Small-scale maintenance and repair work may be considered as classified in the sector "4121-01, -011 Repair of construction." However, those are treated, as before, as public works from a chronological perspective.

Column Code	Row Code	Sector Name
4131-03	4131-031	Agricultural public construction

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The activities of the following public works, including maintenance and repair works, in addition to new construction

(1) Agricultural public works: Agricultural infrastructure improvement activities implemented by the government, local governments, land improvement sectors, and other entities

(2) Forest paths: Activities implemented by the government and local governments relating to forest paths

(3) Mountain forest preservation: Activities implemented by the government and local governments relating to mountain forest preservation

(4) Reconstruction following natural disaster: Reconstruction activities, relating to the aforementioned points 1 through 3, implemented by the government and local governments

(Given examples)

Land improvement, forest paths, mountain forest preservation, reconstruction after disaster

Column Code	Row Code	Sector Name
4191-01	4191-011	Railway construction

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The construction activities relating to railways implemented by Japan Railway, Japan Railway Construction Corporation, public railways, private railways, Teito Rapid Transit Authority, and Honshu-Shikoku Bridge Authority, as well as the replacement and repair activities of rails and power and signal facilities

(Given examples)

Construction relating to railways

(Notes)

Activities of the sectors "4191-01, -011 Railway construction" "4191-02, -021 Electric power facilities construction" "4191-03, -031 Telecommunication facilities construction" and "4191-09, -099 Miscellaneous civil engineering and construction" may be considered more or less as established items rather than as activities similar to the sector of "Public works." In short, the classification of the sectors in the "Construction" sector is defined on

a production (construction) basis, while in the "Civil engineering" sector it is based on investment.

Civil engineering construction activities implemented by other establishments than those that are defined according to investment will be classified in the sector "4191-09, -099 Miscellaneous civil engineering and construction"

Column Code	Row Code	Sector Name
4191-02	4191-021	Electric power facilities construction

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

Electricity business activities conducted by nine power companies, Okinawa Power Company, Electric Power Development Company, and local public enterprises as well as facility construction work activities conducted by other electricity business entities and Japan Atomic Power Company relating to power generation, transmission and distribution.

Facilities replacement and repair work is included in this sector, and entities that obtain the licensed permission for installing in-house power generation of more than 1000kW are also included in this sector.

(Given examples)

Facilities relating to power generation, transmission, and distribution

Column Code	Row Code	Sector Name
4191-03	4191-031	Telecommunication facilities construction

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

Telecommunication facilities construction activities conducted by Type 1 telecommunication carriers, and facilities replacement and repair works, are included in this sector.

(Given examples)

Construction of telecommunication related facilities

Column Code	Row Code	Sector Name
4191-09	4191-099	Miscellaneous civil engineering and construction

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The following civil construction works by private sectors and that are not classified elsewhere, and civil construction works other than government public works.

(1) Water supplies and water supplies for industry:

Facilities construction conducted by local public entities relating to water supplies, small-scale water-supply systems, and water supplies for industry

(2) Site preparation:

Site preparation work conducted by the Urban Development Corporation, the Japan Regional Development Corporation, local public entities, and the private sector

(3) Other civil engineering:

Restoration work, in relation to mining pollution, carried out by the government and local public entities, gas related works carried out by local public entities and the private sector, investment-oriented construction work by unemployed people placement programs conducted by local public entities, parking maintenance work conducted by the government, and other private sector civil engineering construction not previously mentioned

(Given examples)

Facilities relating to water supplies and water supplies for industry, reclamation and site preparation work, construction work for gas tanks, parking lots, golf links, ball parks, recreation parks and pipelines, district streets in housing complexes conducted by private sectors, piers and bank roads, and river construction work

46 Electricity, gas and heat supply

Column Code	Row Code	Sector Name
	4611-001	Electricity
4611-01		Electricity (thermal power)
4611-02		Electricity (except thermal power)

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities for the "PRODUCTION, TRANSMISSION AND DISTRIBUTION OF ELECTRICITY" excluding private power generation listed under Group Number 331 of the Japan Standard Industrial Classification.

(Given examples)

Thermal power generation (including biomass), hydraulic power generation, nuclear power generation, power generation from new energy sources (wind, geothermal, solar power generation)

(Notes)

Joint power generation classified under "5111-02 Electricity (thermal power)," "5111-03 Electricity (water power, etc.)" and this sector in the 2005 I-O Tables were included in "4611-04, -041 Private power generation" in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
4611-03	4611-031	Private power generation

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The private power generation activities specified in "PRODUCTION, TRANSMISSION AND DISTRIBUTION OF ELECTRICITY" listed under Group Number 331 of the Japan Standard Industrial Classification. However, only activities of the mining industry with continuous power generation facilities of a maximum output of more than 1,000 kW are applicable to this scope.

(Notes)

(1) This sector is defined as an independent activity sector, not as a self-activity sector, despite the sector name "private power generation."

(2) Joint power generation classified under "5111-02 Electricity (thermal power)," "5111-03 Electricity (water power, etc.)" and "5111-001 Electricity" in the 2005 I-O Tables were integrated into this sector in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
4621-01	4621-011	Gas supply

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "PRODUCTION AND DISTRIBUTION OF GAS" listed under Group Number 341 of the Japan Standard Industrial Classification.

Column Code	Row Code	Sector Name
4622-01	4622-011	Steam and hot water supply

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "HEAT SUPPLY" listed under Group Number 351 of the Japan Standard Industrial Classification.

47 Water supply

Column Code	Row Code	Sector Name
4711-01	4711-011	Water supply

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The production activities of "WATER FOR END USERS, EXCEPT INDUSTRIAL USERS" excluding water supply for shipping listed under Group Number 361 of the Japan Standard Industrial Classification.

(Given examples)

Activities of water bureaus (departments), water supply offices, water purification pools, drainage facilities, water pumping stations

(Notes)

(1) This sector applies to activities related to drinking water supplies, regardless of usage (mains water, general water supplies, and small-scale water-supply systems, as specified in the Water Law).

(2) Activities related to water supplies for shipping are included in "5789-02, -021 Port and water traffic control (public corporation) **" and "5789-03, -031 Port and water traffic control."

Column Code	Row Code	Sector Name
4711-02	4711-021	Industrial water supply

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "WATER FOR INDUSTRIAL USERS" listed under Group Number 362 of the Japan Standard Industrial Classification.

(Notes)

(1) This sector corresponds to activities (industrial water business based on "Industrial Water Road Business Act") for supplying water for industrial use (exclusive of water supplied for hydroelectric power generation and for drinking)

(2) Water supplies and small-scale water supply activities conducted by local public entities according to the "Water Law" are classified in the sector "4711-01, -011 Water supply"

Column Code	Row Code	Sector Name
4711-03	4711-031	Sewage disposal **

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The associated treatment activities for "SEWERAGE" listed under Group Number 363 of the Japan Standard Industrial Classification; namely, the activities of sewage bureau (departments), sewerage facilities, sewerage offices, and sewerage pumping stations

(Notes)

This sector covers the business activities of facilities that drain sewerage and rain water within the scope of public sewerage activities conducted by local public entities. Therefore, the activities of this sector are aimed at sanitation by way of drains, drainage canals and other ancillary facilities (such as filtration facilities). Activities by local public entities in treating waste and excretion are classified in the sector "4811-01, -011 Waste management services (public) **"

48 Waste management service

Column Code	Row Code	Sector Name
4811-01	4811-011	Waste management services (public corporation) **

(Ministry or agency in charge)

Ministry of the Environment

(Definition, Scope)

The activities of local public entities among those specified in "DOMESTIC WASTE DISPOSAL BUSINESS" listed under Group Number 881, "INDUSTRIAL WASTE DISPOSAL BUSINESS" listed under Group Number 882, and "MISCELLANEOUS WASTE DISPOSAL BUSINESS" listed under Group Number 889 of the Japan Standard Industrial Classification.

(Given examples)

Activities related to the collection and treatment of human waste, waste, and industrial waste

(Notes)

Taking into account handling in terms of industrial classifications and laws, it may be more desirable to reorganize this sector into "Domestic waste disposal (including night soil disposal)" and "Industrial waste disposal." However, as both domestic waste disposal and industrial waste disposal are intermixed with both industry and publicly-managed, and strict categorization is not possible when recording, the current sectors are kept.

Column Code	Row Code	Sector Name
4811-02	4811-021	Waste management services

(Ministry or agency in charge)

Ministry of the Environment

(Definition, Scope)

The activities of private entities among those specified in "DOMESTIC WASTE DISPOSAL BUSINESS" listed under Group Number 881, "INDUSTRIAL WASTE DISPOSAL BUSINESS" listed under Group Number 882, and "MISCELLANEOUS WASTE DISPOSAL BUSINESS" listed under Group Number 889 of the Japan Standard Industrial Classification; activities commissioned by local public entities are included, while in-house disposal is not included.

(Given examples)

Activities related to the collection and treatment of human waste, waste, and industrial waste

(Notes)

Same as "4811-01, -011 Waste management services (public) **."

51 Commerce

Column Code	Row Code	Sector Name
5111-01	5111-011	Wholesale trade

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The wholesale trade activities related to Group Numbers 501, 511through 513, 521 through 522, 531 through 535, 541 through 549, 551 through 559 of the Japan Standard Industrial Classification; the production values are wholesale trade margins.

The sector includes sales activities of Agriculture Cooperative Unions, Fishery Cooperative Unions, Processed Marine Products Cooperative Unions, and Forestry Cooperative Unions, sales and procurement activities of the Japan Agriculture Cooperative Association, Japan Fishery Cooperative Association, Japan Processed Marine Products Cooperative Association, and Japan Forestry Cooperative Association, central wholesale market, and local wholesale markets.

(Notes)

The activities of "RECYCLED MATERIAL" listed under Group Number 536 of the Japan Standard Industrial Classification are included in "3921-01, -011 Reuse and recycling." Activities exclusive of the resource storage business of the Japan Oil, Gas and Metals National Corporation are included in "6699-09, -099 Miscellaneous business services."

Column Code	Row Code	Sector Name
5112-01	5112-011	Retail trade

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The activities of "retail business" of Group Numbers 561 – 569, 571 – 579, 581 – 589, 591 – 593, 601-609, and 611-619, as well as "PAWNBROKERS" listed under Group Number 642 of the Japan Standard Industrial Classification. The domestic production amount is the retail margin amount.

The sector includes the procurement activities of Agriculture Cooperative Unions, Fishery Cooperative Unions, Processed Marine Products Cooperative Unions, and Forestry Cooperative Unions, and activities of retail stores and Co-ops. The production activities of manufacturing and retailing are not classified in this

sector, but classified in the corresponding sector of manufacturing.

(Given examples)

Examples of manufacturing and retailing: Retail of menswear, confectionery, bread, processed food such as tofu, kamaboko, and so forth, the retail of cooked dishes, furniture, housing fixtures, tatami, religious ceremonial articles

(Notes)

(1) Among the activities of dispensing pharmacies, dispensing by pharmacies as based on prescriptions from physicians or dentists are excluded.

(2) Following the revision of the Japan Standard Industrial Classification, food takeout and delivery services classified under "Delicatessen stores" in the 2005 I-O Tables were integrated into "6721-01, -011 Eating and drinking services" in the 2011 I-O Tables.

(3) Trade margins in "pharmacy dispensing services not covered by health insurance" in the 2005 I-O Tables were integrated into "6411-04, -041 Medical service (pharmacy dispensing)" in the 2011 I-O Tables.

53 Finance and insurance

Column Code	Row Code	Sector Name
5311-01		Financial service
	5311-011	Financial service (FISIM), public
	5311-012	Financial service (FISIM), private
	5311-013	Financial service (commission), public
	5311-014	Financial service (commission), private

(Ministry or agency in charge)

Financial Services Agency

(Definition, Scope)

The scope corresponds to the activities of "CENTRAL BANK" listed under Group Number 621, "BANKS,EXCEPT CENTRAL BANK" listed under Group Number 622, "FINANCIAL INSTITUTIONS FOR SMALL－BUSINESS" listed under Group Number 631, "FINANCIAL INSTITUTIONS FOR AGRICULTURE, FORESTRY AND FISHERIES FINANCES" listed under Group Number 632, "MONEY LENDING BUSINESS" listed under Group Number 641, "CREDIT CARD AND INSTALLMENT FINANCE BUSINESSES" listed under Group Number 643, "MISCELLANEOUS NON-DEPOSIT MONEY CORPORATIONS" listed under Group Number 649, "FINANCIAL PRODUCTS TRANSACTION DEALERS" listed under Group Number 651, "FUTURES COMMODITY TRANSACTION DEALERS AND COMMODITY INVESTMENT ADVISORS" listed under Group Number 652, "FINANCIAL AUXILIARIES listed under Group Number 661, "TRUST BUSINESSES" listed under Group Number 662, and "FINANCIAL BROKERS AND INTERMEDIARIES" listed under Group Number 663 of the Japan Standard Industrial Classification.

(Given examples)

City banks, regional banks (including second-tier regional banks), trust banks, long-term credit banks, foreign banks in Japan, Norinchukin Bank, JA Bank Shin-ren, JF Bank Shin-gyoren, JA Co-op unions (credit facility), JF Co-op unions (credit facility), Agriculture, Credit finance services, Shin-kin Federation Bank, credit co-op unions, Shin-kin Central Bank, Shoko Chukin Bank, Rokin banks, Rokin Federation Bank, short-term financing companies, investment management companies, securities financing companies, securities companies, securities investment trust companies, securities investment advisory companies, financial instruments exchanges, Japan Post Co., Ltd. (bank

agency business) and those classified under "financial service" in "public activities" in System of Transactor-Based Production Activity Classification.

(Notes)

(1) Public financial institutions refer to those classified under "financial service" in "public activities" in System of Transactor-Based Production Activity Classification and the Japan Post Co., Ltd. (bank agency business). All other financial institutions are private financial institutions.

(2) Financing activities conducted by life insurance businesses and insurance businesses are not classified in this sector but in the sectors of "5312-01, -011 Life insurance" and "5312-02, -021 Non-life insurance"

(3) The row sectors are divided into "public" and "private" in order to make them consistent with institutional sector division of the SNA's income expenditure and capital finance accounts, as well as to clarify the differences between the output structures.

Column Code	Row Code	Sector Name
5312-01	5312-011	Life insurance

(Ministry or agency in charge)

Financial Services Agency

(Definition, Scope)

Life insurance services classified under the activities of "LIFE INSURANCE INSTITUTIONS" listed under Group Number 671, "Life insurance agents and brokers" listed under Industry Number 6741, "MUTUAL AID ORGANIZATIONS AND SMALL-AMOUNT SHORT-TERM INSURANCE PROVIDERS" listed under Group Number 673, and "Miscellaneous insurance service institutions" listed under Industry Number 6759 of the Japan Standard Industrial Classification; and services that do not fall under "social security funds" classified under the activities of "SOCIAL INSURANCE ORGANIZATIONS" listed under Group Number 851 of the Japan Standard Industrial Classification

(Given examples)

Life insurance, pension insurance, re-insurance of life insurance, life insurance agents, re-insurance of JA mutual aid insurance (such as life insurance mutual aid), social insurance business (national pension funds and associations, welfare pension funds, corporate pension funds and associations, etc.)

(Changes from the 2011 I-O Tables)

Services that do not fall under "social security funds" classified under "6431-01, -011 Social insurance **" in the 2011 I-O Tables (national pension funds, the National Pension Fund Association, welfare pension funds, corporate pension funds, the Pension Fund Association, the Farmers Pension Fund (except old pensions), the Organization for Small & Medium Enterprises and Regional Innovation (mutual aid account for small enterprises), and the Organization for Workers Retirement Allowance Mutual Aid, etc.) are integrated into this sector.

(Notes)

(1) This sector includes the group life insurance services of the Japan Housing Finance Agency and life insurance services practiced in Japan by foreign life insurance companies licensed as specified in the Insurance Business Act.

(2) A study was conducted in the 1985 I-O Tables to establish a row code for imputed interest because activities of life insurance companies would produce pure insurance services and, simultaneously, they would produce imputed services for finance as a combined product. However, this idea was withdrawn in consideration of the 68 SNA (the interpretation of the 93 SNA remains the same as that of the 68 SNA).

Column Code	Row Code	Sector Name
5312-02	5312-021	Non-life insurance

(Ministry or agency in charge)

Financial Services Agency

(Definition, Scope)

The activities of "NON-LIFE INSURANCE INSTITUTIONS" listed under Group Number 672, "Non-life insurance agents and brokers" listed under Industry Number 6742, "Agents and brokers for mutual aid and Small-amount Short-term Insurance" listed under Industry Number 6743, "Rate-making services" listed under Industry Number 6751, "Appraisers" listed under Industry Number 6752, "MUTUAL AID ORGANIZATIONS AND SMALL-AMOUNT SHORT-TERM INSURANCE PROVIDERS" listed under Group Number 673, and "Miscellaneous insurance service institutions" listed under Industry Number 6759 of the Japan Standard Industrial Classification.

(Given examples)

Fire insurance, earthquake insurance, marine insurance, automobile insurance (compulsory, arbitrary), theft insurance, transportation insurance, re-insurance of non-life insurance, trade insurance, non-life insurance agents, JA mutual aid (fire,

car), re-insurance of JA mutual aid (fire, car), and retrocession of re-insurance

(Notes)

This sector includes government insurance and reinsurance special accounts, Japan Housing Finance Agency (housing loan insurance), Japan Finance Corporation (credit insurance business), insurance business conducted by the Agriculture, Forestry and Fisheries Credit Foundations, and disaster provident benefits conducted by the Japan Sport Council, forestry insurance account of the Forestry and Forest Products Research Institute and the Nippon Export and Investment Insurance, as well as nonlife insurance businesses operated in Japan by foreign insurance companies that have received a license as specified in the "Insurance Business Act."

55 Real estate

Column Code	Row Code	Sector Name
5511-01	5511-011	Real estate agencies and managers

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities of "SALES AGENTS OF BUILDINGS AND HOUSES AND LAND SUBDIVIDERS AND DEVELOPERS" listed under Group Number 681, "REAL ESTATE AGENTS AND BROKERS" listed under Group Number 682, parking lots that are managed and operated with the purpose of storing automobiles upon being commissioned by the owner as specified in "AUTOMOBILE PARKING" listed under Group Number 693, and "REAL ESTATE MANAGERS" listed under Group Number 694 of the Japan Standard Industrial Classification.

(Given examples)

Commission fees for selling, leasing, swapping, and brokering real estate, real estate management fees

(Changes from the 2011 I-O Tables)

In housing sales, only commission fees for brokering services were recorded in the 2011 I-O Tables, but in the 2015 I-O Tables, trade margins are recorded.

(Notes)

(1) The construction activities by sales agents of buildings and houses are not included in this sector, but in the construction sector.

(2) Regarding the activities of property sales, only commission fees for trade agencies and brokerages are included in production values. Costs needed for site preparation are included in the construction sector.

Column Code	Row Code	Sector Name
5511-02	5511-021	Real estate rental service

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities exclusive of "Land lessors" listed under Industry Number 6912 from among "REAL ESTATE LESSORS, EXCEPT HOUSE AND ROOM LESSORS" listed under Group Number 691, and activities of parking businesses with the objective of storing automobiles specified in "AUTOMOBILE PARKING" listed under Group Number 693 (exclusive of activities of management and operation of parking lots

conducted upon being commissioned by the owner) of the Japan Standard Industrial Classification.

(Given examples)

Leasing fees for real estate leasing (commercial property rentals (or partial property rental in the case of combined housing), building rental, warehouse rental)

(Notes)

The leasing fee for the housing portion in the case of combined housing shall be classified in the sector "5521-01, -011 House rent."

Column Code	Row Code	Sector Name
5521-01	5521-011	House rent

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities of "HOUSE AND ROOM LESSORS" listed under Group Number 692 of the Japan Standard Industrial Classification.

Column Code	Row Code	Sector Name
5531-01	5531-011	House rent (imputed house rent)

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

In activities where a person living in a house that he/she owns is operating a house rental business in relation to himself/herself, services that arise due to use of one's own home, not associated with receipt and payment of rent.

Even with regard to housing and dormitories for employees that are owned by a company, the difference between the market price and the rent that is actually paid is included in this sector.

57 Transport and postal services

Column Code	Row Code	Sector Name
5711-01	5711-011	Railway transport (passengers)

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities related to passenger transport specified in "RAILWAY TRANSPORT" listed under Group Number 421 and activities specified in "Railway facilities services" listed under Industry Number 4851 of the Japan Standard Industrial Classification; other activities of the railway business, including carriage repair activities, shall be classified in separate sectors according to their nature.

(Given examples)

Passenger transportation activities undertaken by JR, public and private railways, and tramways (regular railways, tramways, underground railways, monorail railways, guided rail type tramways, cable tramways, ropeways, and non-rail tramways)

(Notes)

(1) Revenues relating to advertisements in carriage and on station premises, and the sales of goods, public telephone services, and coin locker use shall not be included in this sector.

(2) Revenues derived from other forms of transport such as "Bus transport services" shall be treated in the same way.

Column Code	Row Code	Sector Name
5712-01	5712-011	Railway transport (freight)

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities of cargo transportation specified in "RAILWAY TRANSPORT" listed under Major Group Number 421 of the Japan Standard Industrial Classification.

(Given examples)

Cargo transport by JR, private railways

(Notes)

Activities carried out by freight forwarders and freight forwarding agents are not included in this sector, but are included in "5761-01, -011 Consigned freight forwarding"

Column Code	Row Code	Sector Name
5721-01	5721-011	Bus transport service

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The scope corresponds to the activities of "COMMON OMNIBUS OPERATORS" listed under Group Number 431, "CONTRACTED OMNIBUS OPERATORS" listed under Group Number 433, and "Motor passenger transport (particularly-contracted)" listed under Industry Number 4391 of the Japan Standard Industrial Classification.

(Given examples)

Passenger transportation by passenger bus transport, passenger rental bus, special-purpose passenger car transport

(Notes)

Revenues from advertisements in bus carriages, etc. are not included in domestic production for this sector.

Column Code	Row Code	Sector Name
5721-02	5721-021	Hired car and taxi transport

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The scope corresponds to the activities of "COMMON TAXICAB OPERATORS" listed under Group Number 432, and "Road passenger transport, n.e.c." listed under Industry Number 4399 of the Japan Standard Industrial Classification.

(Given examples)

6799-09, -099 Miscellaneous personal services

(Notes)

Chauffeur services are included in "6799-09, -099 Miscellaneous personal services"

Column Code	Row Code	Sector Name
5722-01	5722-011	Road freight transport (except self-transport)

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The scope corresponds to the activities of "COMMON MOTOR TRUCKING" listed under Group Number 441, "MOTOR TRUCKING (PARTICULARLY-CONTRACTED)" listed under Group Number 442, "MINI-SIZED VEHICLE FREIGHT TRANSPORT" listed under Group Number 443, and "MISCELLANEOUS ROAD FREIGHT TRANSPORT" listed under Group Number 449 of the Japan Standard Industrial Classification.

(Given examples)

Freight transport by trucks (regular freight, special combined freight, specific-purpose freight), by mini-sized vehicle

(Notes)

(1) Activities carried out by freight forwarders and freight forwarding agents are not included in this sector, but are included in "5761-01, -011 Consigned freight forwarding"

(2) Although the definition and scope of this sector is as described above, charter fee payment or receipt is the transaction within the sector and shall not be counted in the production values.

(3) Due to the revision of the Postal Act, parcels, which were included in "7311-01, -011 Postal services and mail delivery" in the 2005 I-O Tables, were integrated into this sector in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
5731-01P	5731-011P	Self-transport (passengers)

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The scope corresponds to the activities of transporting people by private vehicles according to own demands (excluding self-driven travel.) Further, transportation by cargo vehicles is included in this sector.

(Notes)

(1) The production values are calculated by aggregating expenses relating to goods and services that were needed for the transport by the private cars. However, expenses that are classified as gross value-added sector items shall not be charged against the sector of transport by private cars, a dummy sector that does not book added values, but shall be charged against corresponding gross value-added sectors. For example, personnel expenses relating to transport by private cars are included in "9111-000 Wages and salaries."

(2) The "Matrix of transport by private cars" will be created, both for passengers and for freight, as a supporting table showing expense details for goods and services by respective industry that were needed for transport activities by private cars.

Column Code	Row Code	Sector Name
5732-01P	5732-011P	Self-transport (freight)

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The scope corresponds to the activities of transporting cargo by private vehicles according to own demands (excluding self-driven travel.)

(Notes)

Same as those of aforementioned sector "5731-01P, -011P Self-transport (passengers)".

Column Code	Row Code	Sector Name
5741-01	5741-011	International shipping

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities specified in "OCEANGOING TRANSPORT" listed under Group Number 451, and "Vessel rental, except coastwise ship leasing" listed under Industry Number 4541of the Japan Standard Industrial Classification.

(Given examples)

Passenger and freight transportation by ocean transport

(Notes)

(1) Activities of "Vessel rental, except coastwise ship leasing" under 4541 of the Industry Number of the Japan Standard Industrial Classification are included in this sector. However, charter fee payment or receipt is the transaction within the sector and shall not be counted in the production values. A charter agreement with foreign "ocean transport" or "vessel leasing" shall, however, be counted in view of the international balance of payment. The import side of this (payment side of charter fee) shall be counted in at the point of intersection of own sector.

(2) Activities carried out by freight forwarders and freight forwarding agents are not included in this sector, but are included in "5761-01, -011 Consigned freight forwarding"

Column Code	Row Code	Sector Name
5742-01		Coastal and inland water transport
	5742-011	Coastal and inland water transport (passengers)
	5742-012	Coastal and inland water transport (freight)

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities specified in "COASTWISE TRANSPORT" listed under Group Number 452, "INLAND WATER TRANSPORT" listed under Group Number 453, and "Coastwise ship leasing" listed under Industry Number 4542 of the Japan Standard Industrial Classification.

(Given examples)

Passenger transport by coastal water transport (including transport of passengers below twelve people), freight transport by coastal water transport, passenger transport by port transport, passenger and freight transport by river water transport and inland water transport

(Notes)

(1) Activities of "Coastwise ship leasing" under Industry Number 4542 of the Japan Standard Industrial Classification are included in this sector. However, the related charter fee, payment and receipt, shall not be counted in this sector because of transactions within the sector.

(2) Activities carried out by freight forwarders and freight forwarding agents are not included in this sector, but are included in "5761-01, -011 Consigned freight forwarding"

Column Code	Row Code	Sector Name
5743-01	5743-011	Harbor transport service

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities specified in "PORT TRANSPORT" listed under Group Number 481 of the Japan Standard Industrial Classification.

(Given examples)

Regular port transport, port-cargo handling, lighter transport (including towing lighters and rafts), coastal cargo handling and raft cargo handling

Column Code	Row Code	Sector Name
5751-01		Air transport
	5751-011	International air transport
	5751-012	Domestic air transport (passengers)
	5751-013	Domestic air transport (freight)
	5751-014	Aircraft service except air transport

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities specified in "AIR TRANSPORT" listed under Group Number 461, and "AIRCRAFT SERVICE, EXCEPT AIR TRANSPORT" listed under Group Number 462 of the Japan Standard Industrial Classification.

(Given examples)

Passenger and freight transportation internationally or domestically, and aircraft services (chemical spray by aircrafts, aerial photography) by air transport

(Notes)

(1) Although "AIR TRANSPORT" listed under Group Number 461 of the Japan Standard Industrial Classification is within the scope of this sector, charter fee payment or receipt for international air transport is a transaction within the sector and shall not be counted in the production values. A charter agreement (passenger charger + freight charter) with foreign "air transport" shall, however, be counted in view of the international balance of payment. The import side of this (payment side of charter fee) shall be counted in at the point of intersection of own sector.

(2) Activities carried out by freight forwarders and freight forwarding agents are not included in this sector, but are included in "5761-01, -011 Consigned freight forwarding."

Column Code	Row Code	Sector Name
5761-01	5761-011	Consigned freight forwarding

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities specified in "COLLECT-AND-DELIVER FREIGHT TRANSPORT" listed under Group Number 444 and "FREIGHT FORWARDING, EXCEPT COLLECT-AND-DELIVER FREIGHT TRANSPORT" listed under Group Number 482 of the Japan Standard Industrial Classification.

(Given examples)

Freight forwarders (1st group freight forwarders), collect-and-deliver freight transporters (2nd group freight forwarders), freight forwarding agents

(Notes)

The production value of this sector corresponds to the amount of transport fare and trade commission deducted by transport fare payable to actual transportation entities and trade commission, in order to avoid double counting of freight transport fare.

Column Code	Row Code	Sector Name
5771-01	5771-011	Storage facility service

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities specified in "ORDINARY WAREHOUSING" listed under Group Number 471, "REFRIGERATED WAREHOUSING" listed under Group Number 472 of the Japan Standard Industrial Classification, and co-op warehousing activities

(Given examples)

Regular warehousing (outdoor warehousing, storage silo, storage tank, trunk room), storage and cargo handling at chilled warehouse, water surface timber warehouse, JA warehouse, marine products union warehouse, forestry union warehouse, union warehouse for small businesses

(Notes)

Activities at a private warehouse shall be included in the activities of the corresponding industry. However, activities at union warehouses shall be included in this sector because union warehouses charge similar as commercial warehouses do.

Column Code	Row Code	Sector Name
5781-01	5781-011	Packing service

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities specified in "PACKING AND CRATING" listed under Group Number 484 of the Japan Standard Industrial Classification.

(Given examples)

Packing, cargo packing, crating, industrial products crating, export packing

(Notes)

Private packing activities shall be treated as inputs of packing materials of corresponding sector, and shall not be included in

this sector.

Column Code	Row Code	Sector Name
5789-01	5789-011	Facility service for road transport

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities of "Fixed facilities for road transport" listed under Industry Number 4852, "Terminal facilities for motor vehicles" listed under Industry Number 4853, activities related to road transport in specified in "Terminal facilities for handling freight" listed under Industry Number 4854, and activities exclusive of surface parking lots and parking lots with the purpose of storing automobiles specified in "AUTOMOBILE PARKING" listed under Group Number 693 of the Japan Standard Industrial Classification.

(Given examples)

Motorways, toll roads, toll bridges, toll tunnels, car terminals, facilities relating to road transport among "Terminal facilities for handling freight", toll parking lot

(Notes)

(1) Rent-a-car and leasing cars are included in "6612-01, -011 Car rental and leasing"

(2) Parking lots on roads are not included in this sector, but included in "6112-01, -011 Public administration (local) **" for the following reasons; parking lots on roads are the tentative measure for car parking until such time that sufficient volume of regular parking space becomes available; and parking lots on roads provided with parking meters and tickets that are prepared by the National Public Safety Commission are aiming at parking hours control for better road utilization.

Column Code	Row Code	Sector Name
5789-02	5789-021	Port and water traffic control (public corporation) **

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities specified in "Piers and docks" listed under Industry Number 4855, port-related activities such as cargo handling pier facilities specified in "Terminal facilities for handling freight" listed under Industry Number 4854, water supply activities for vessels specified in "WATER FOR END USERS, EXCEPT INDUSTRIAL USERS" listed under Group Number 361, and activities of providing waterways information by waterway signaling office (lighthouse), and by the water traffic center specified "Services incidental to transport, n.e.c." listed under Industry Number 4899 of the Japan Standard Industrial Classification

(Given examples)

Management of port and fishing harbor, provision of waterways information

(Changes from the 2011 I-O Tables)

Port-related activities to which local public business accounting is applied, and management of some facilities conducted within port premises by port operation companies, etc., which were included in this sector in the 2011 I-O Tables, are removed from this sector and classified under a new sector, "5789-03, -031 Port and water traffic control."

(Notes)

Regarding vessel tonnage tax and special tonnage tax, those taxes are primarily paid to customs directly by captains of inbound vessels or by operators. However, those taxes are the cost of using port facilities by inbound vessels and, therefore, shall be input to this sector as expenses booked as indirect taxes to consist the production value. In the similar manner, canal passage tax and lighthouse tax are booked in this sector, but limited to those for import.

Column Code	Row Code	Sector Name
5789-03	5789-031	Port and water traffic control

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The port-related activities such as cargo handling pier facilities specified in "Freight handling facilities" listed under Industry Number 4854, activities specified in "Piers and docks" listed under Industry Number 4855, water supply activities for vessels specified in "WATER FOR END USERS, EXCEPT INDUSTRIAL USERS" listed under Group Number 361 of the Japan Standard Industrial Classification

(Given examples)

Management of ports

(Changes from the 2011 I-O Tables)

Port-related activities to which local public business accounting is applied, and management of some facilities conducted

within port premises by port operation companies, etc., which were included in "5789-02. -021 Port and water traffic control **" in the 2011 I-O Tables, are split and specified in this sector.

Column Code	Row Code	Sector Name
5789-04	5789-041	Services relating to water transport

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities of measuring quantities, volume, transport appraisal, ship pilot, salvage, marine rescue, rope handling on anchoring, and vessel towing specified in "Services incidental to transport, n.e.c." listed under Industry Number 4899 of the Japan Standard Industrial Classification.

(Given examples)

Ship pilot, quantity inspection, volume inspection, appraisal

Column Code	Row Code	Sector Name
5789-05	5789-051	Airport and air traffic control (public corporation) **

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The management activities of airports and public heliports by the local public entities specified in "Airports and air fields, heliports" listed under Industry Number 4856 of the Japan Standard Industrial Classification.

(Given examples)

Airport management

(Changes from the 2011 I-O Tables)

Airport management and air traffic control activities conducted by the national government, which were classified under this sector in the 2011 I-O Tables are integrated into "5789-06, -061 Airport and air traffic control."

(Notes)

Import (payment relating to foreign airport facilities) shall be counted in the sector "5789-06, -061 Airport and air traffic control."

Column Code	Row Code	Sector Name
5789-06	5789-061	Airport and air traffic control

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

Activities related to "Airports and air fields, heliports" listed under Industry Number 4856 of the Japan Standard Industrial Classification, which are conducted by entities other than local public bodies.

(Given examples)

Airport control, air traffic control

(Changes from the 2011 I-O Tables)

Airport management and air traffic control activities conducted by the national government, which were classified under "5789-04, -041 Airport and air traffic control (public) **" in the 2011 I-O Tables, are integrated into this sector.

(Notes)

Import (payment relating to foreign airport facilities) shall be counted in this sector.

Column Code	Row Code	Sector Name
5789-07	5789-071	Services relating to air transport

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The supporting activities relating to air transport (on-board food services, operation service, passenger boarding, luggage loading, aircraft fuel control and fuel supply charge, and other related services) among those specified in "Services incidental to transport, n.e.c." excluding air traffic control activities under Industry Number 4899 of the Japan Standard Industrial Classification.

(Given examples)

Provision of facilities for fueling aircrafts, provision of convenience facilities, provision of supply facilities

(Notes)

Airport terminal buildings are included in "5511-02, -021 Real estate rental service", passenger transportation limousine buses are in "5721-01, -011 Bus transport service", fuel supply (sale of fuel) is in "Trade", and aircraft maintenance and repair are in "3592-10, -101 Repair of aircrafts" respectively

Column Code	Row Code	Sector Name
5789-09	5789-099	Travel agency and miscellaneous services relating to transport

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The activities conducted by tourism associations among those specified in “TRAVEL AGENCY” listed under Group Number 791, “TRANSPORT AGENCIES” listed under Group Number 483, “Shipping brokers” listed under Industry Number 4891, “Services incidental to transport, n.e.c.” listed under Industry Number 4899 of the Japan Standard Industrial Classification.

(Given examples)

Travel agencies, transport agencies, transport intermediates

(Notes)

This sector covers other transport businesses not elsewhere classified.

Column Code	Row Code	Sector Name
5791-01	5791-011	Postal services and mail delivery

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The post-related activities among those specified in “POSTAL ACTIVITIES, INCLUDING MAIL DELIVERY” listed under Group Number 491 ,“POSTAL SERVICES” listed under Group Number 861, and “CONTRACTED POSTAL SERVICES” listed under Group Number 862 of the Japan Standard Industrial Classification.

(Given examples)

Regular post, parcel delivery, postal services undertaken by contracted post offices, postal stamp selling stands (trade commissions), etc.

(Changes from the 2011 I-O Tables)

Postal services undertaken by contracted post offices, and postal stamp selling stands (trade commissions), which were classified under “5919-09, -099 Miscellaneous service relating to communication” in the 2011 I-O Tables are integrated into this sector.

(Notes)

Commissioning of transport of postal matter shall be counted in at the point of intersection of “5712-011 Railway transport (freight),” “5742-012 Coastal and inland water transport (freight),” “5751-011 International air transport” and “5751-013 Domestic air transport (freight).”

59 Information and communications

Column Code	Row Code	Sector Name
5911-01	5911-011	Fixed telecommunications

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

Services related to “FIXED TELECOMMUNICATIONS” listed under Group Number 371 of the Japan Standard Industrial Classification, except server housing services and server hosting services.

(Given examples)

Telephone, telegraph, telegram, personal, ISP (internet service provider), IX (internet exchange) service, Internet connection service via fixed telecommunication lines, voice messaging service, fax service, wire broadcast telephones, etc.

(Changes from the 2011 I-O Tables)

(1) Wire broadcast telephones classified under “5911-09, -099 Miscellaneous telecommunications” and “5919-09, -099 Miscellaneous services relating to communication” in the 2011 I-O Tables is integrated into this sector.

(2) Server housing services and server hosting services classified under “5911-09, -099 Miscellaneous telecommunications” in the 2011 I-O Tables are integrated into “5941-01, -011 Internet based services.”

(Notes)

Self-operated telecommunication network systems and telephone systems such as public offices, electricity, railways, aircrafts, and ships are not included in this sector.

Column Code	Row Code	Sector Name
5911-02	5911-021	Mobile telecommunications

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The activities specified in “MOBILE TELECOMMUNICATIONS” listed under Group Number 372 of the Japan Standard Industrial Classification.

(Given examples)

Mobile phones, PHSs, on-demand radio communications, internet connection services by mobile telecommunications, etc.

Column Code	Row Code	Sector Name
5911-03	5911-031	Services incidental to telecommunications

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The activities specified in "SERVICES INCIDENTAL TO TELECOMMUNICATIONS" listed under Group Number 373 of the Japan Standard Industrial Classification.

(Given examples)

Contracted telecommunications services, cellular phone shops (commission fees for cellular phone contracts), contracted airport radio telephone services, mobile radio center services, etc.

(Changes from the 2011 I-O Tables)

"Wire broadcast telephones" and "postal services undertaken by contracted post offices and postal stamp selling stands (trade commission)" classified under "5919-09, -099 Miscellaneous services relating to communication" in the 2011 I-O Tables are integrated into "5911-01, -011 Fixed telecommunications" and "5791-01, -011 Postal services and mail delivery", respectively.

Column Code	Row Code	Sector Name
5921-01	5921-011	Public broadcasting

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The activities specified in "PUBLIC BROADCASTING, EXCEPT CABLECASTING" listed under Group Number 381, and the activities related to public broadcasting specified in "Satellite broadcasting s" listed under Industry Number 3823 of the Japan Standard Industrial Classification.

(Given examples)

Television, radio, satellite broadcasting by Japan Broadcasting Corporation

(Notes)

NHK Science & Technology Research Laboratories, and NHK Broadcasting Culture Research Institute, both of which belong to Japan Broadcasting Corporation, are included in this sector.

Column Code	Row Code	Sector Name
5921-02	5921-021	Private broadcasting

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The activities specified in "PRIVATE-SECTOR BROADCASTING, EXCEPT CABLECASTING" listed under Group Number 382 (exclusive of public broadcasting activities specified in "Satellite broadcasting" listed under Industry Number 3823) of the Japan Standard Industrial Classification.

Revenues from advertisement is included in the production value.

(Given examples)

Television, radio, satellite broadcasting supported primarily by advertisement commission revenue or fee from broadcasting on contract

Column Code	Row Code	Sector Name
5921-03	5921-031	Cable broadcasting

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The activities of specified in "CABLECASTING" listed under Group Number 383 of the Japan Standard Industrial Classification.

Revenue from advertisement is included in the production value.

(Given examples)

Cable television broadcasting, cable radio broadcasting

Column Code	Row Code	Sector Name
5931-01		Information services
	5931-011	Computer programming and miscellaneous software services
	5931-012	Data processing, research and information services

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The activities specified in "COMPUTER PROGRAMMING AND OTHER SOFTWARE SERVICES" listed under Group Number 391 and "DATA PROCESSING AND INFORMATION SERVICES" listed under Group Number 392 of the Japan Standard Industrial Classification. Also included are the document information provision account of the Japan Science and Technology Agency and activities of the Nippon Automated Cargo and Port Consolidated System, Inc.

(Given examples)

Computer programming and miscellaneous software services: software development, information system development

Data processing and research and information services: computation services, computer center, machine time service, punching services, economic information provider service, real estate information provider service, weather information provider service, traffic information provider service, market research, polling service, social research

Column Code	Row Code	Sector Name
5941-01	5941-011	Internet based services

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The activities specified in "SERVICES INCIDENTAL TO INTERNET" listed under Group Number 401 and activities related to server housing services and server hosting services that fall under activities related to "FIXED TELECOMMUNICATIONS" listed under Group Number 371 of the Japan Standard Industrial Classification.

Revenue from advertisement is included in the production value.

(Given examples)

ASP (application service provider), electronic authentication, information network security service, portal site management, IDC (Internet data center) services, etc.

(Changes from the 2011 I-O Tables)

Server housing services and server hosting services, which were included in "5911-09, -099 Miscellaneous telecommunications" in the 2011 I-O Tables, are integrated into this sector.

Column Code	Row Code	Sector Name
5951-01	5951-011	Video picture, sound information, character information production (except newspaper or publication)

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The activities specified in "VIDEO PICTURE INFORMATION PRODUCTION AND DISTRIBUTION" listed under Group Number 411, "SOUND INFORMATION PRODUCTION" listed under Group Number 412, "COMMERCIAL ART AND GRAPHIC DESIGN" listed under Group Number 415, and "SERVICES INCIDENTAL TO VIDEO PICTURE INFORMATION, SOUND INFORMATION, CHARACTER INFORMATION PRODUCTION AND DISTRIBUTION" listed under Group Number 416 of the Japan Standard Industrial Classification.

(Given examples)

Movie production and distribution, video production and sales, television program production, television commercial production, record production, music publishing, radio program production, advertising production (related to printed matter), Kyodo News Service, Jiji Press, news agency branches (those that do not print and publish), rental studios, pre-production, post-production

(Notes)

(1) Production activities of DVDs, etc. are included in "3919-06, -061 Audio and video records, other information recording media."

(2) "Theatrical goods rental" listed under Industry Number 7091 of the Japan Standard Industrial Classification is included in the column sector "6611-01 Goods rental and leasing (except car rental)" and row sector "6611-015 Sports goods, recreation goods and miscellaneous goods rental and leasing."

(3)Activities related to sound information production, and sound information and character information production and distribution from among services incidental to video picture, sound information, character information production and distribution, which were included in "8519-09, -099 Other business services," as well as news syndicates included in "7351-04, -041 News syndicates and private detective agencies" in the 2005 I-O Tables are integrated into this sector.

Column Code	Row Code	Sector Name
5951-02	5951-021	Newspaper

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The activities of "NEWSPAPER PUBLISHERS" listed under Group Number 413 of the Japan Standard Industrial Classification; revenue from advertisements is also included in the production value

(Notes)

Electronic media is also included in this sector.

Column Code	Row Code	Sector Name
5951-03	5951-031	Publication

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The production activities of "PUBLISHERS, EXCEPT NEWSPAPERS" listed under Group Number 414 of the Japan Standard Industrial Classification; the production value includes revenue from advertisements.

(Given examples)

Books, magazines, journals, other publications

(Notes)

Electronic media is also included in this sector.

61 Public administration

Column Code	Row Code	Sector Name
6111-01	6111-011	Public administration (central government) **

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

"NATIONAL GOVERNMENT SERVICES" listed under Major Group Number 97 of the Japan Standard Industrial Classification in general, covering the central government general accounts and special accounts as well as the government services undertaken by government-associated entities, except services undertaken by "non-market producers (general government) **" associated with the central government which are included in the sectors classified under "semi-public administration" and "social security funds."

(Given examples)

Refer to the "Government services" in System of Transactor-Based Production Activity Classification.

(Changes from the 2011 I-O Tables)

Commission fees paid to the central government by market producers (spectrum license user fees, permit fees, etc.) which were classified under "9411-000 Indirect taxes (except custom duties and commodity taxes on imported goods)" in the 2011 I-O Tables are included in "sales of goods and services" in this sector.

(Notes)

Activities by Self Defense Force are included in this sector.

Column Code	Row Code	Sector Name
6112-01	6112-011	Public administration (local government) **

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to the activities of "LOCAL GOVERNMENT SERVICES" in general under Major Group Number 98 of the Japan Standard Industrial Classification. To be precise, the scope covers the government services by local government-related entities classified as non-market producer (General government) ** among regular local public entities and special local public entities excluding those of sectors that are classified in "semi-public administration" and "social security funds" sector.

(Given examples)

Refer to the "Government services" in System of Transactor-Based Production Activity Classification.

(Changes from the 2011 I-O Tables)

Commission fees paid to the local government by market producers which were classified under "9411-000 Indirect taxes (except customs duties and commodity taxes on imported goods)" in the 2011 I-O Tables are included in "sales of goods and services" in this sector.

63 Education and research

Column Code	Row Code	Sector Name
6311-01	6311-011	School education (public institution) **

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

The scope corresponds to the activities of "KINDERGARTENS" listed under Group Number 811, "ELEMENTARY SCHOOLS" listed under Group Number 812, "LOWER SECONDARY SCHOOLS" listed under Group Number 813, "UPPER SECONDARY SCHOOLS, SECONDARY SCHOOLS" listed under Group Number 814, "SCHOOLS FOR SPECIAL NEEDS EDUCATION" listed under Group Number 815, "INSTITUTION OF HIGHER EDUCATION" listed under Group Number 816, "SPECIALIZED TRAINING COLLEGES AND MISCELLANEOUS SCHOOLS" listed under Group Number 817, and "INTEGRATED CENTERS FOR EARLY CHILDHOOD EDUCATION AND CARE" listed under Group Number 819 of the Japan Standard Industrial Classification established by the National University Corporation, the Institute of National Colleges of Technology, local governments, and public university corporations (excluding research activities conducted by institutions of higher education).

(Given examples)

Kindergartens, integrated centers for early childhood education and care, elementary schools, lower secondary schools, upper secondary schools, secondary education school, special needs school, specialized high schools, junior colleges, universities, special training schools, other types of school

(Changes from the 2011 I-O Tables)

(1) "INTEGRATED CENTERS FOR EARLY CHILDHOOD EDUCATION AND CARE" listed under Group Number 819 of the Japan Standard Industrial Classification are included in this sector.

(2) Research activities conducted by institutions of higher education are removed from this sector and included in relevant sectors listed under "Scientific and development research institutes."

(3) Educational activities of research institutes attached to schools are included in this sector.

(Notes)

(1) Libraries attached to schools are classified in this sector.

However, hospitals and research institutes attached to schools are classified in "Medical" and "Research institutions (except educational activities)" respectively.

(2) A new category, "Integrated centers for early childhood education and care" (legally authorized integrated school and child welfare facilities), was established in April 2015, and the relevant schools are included in this sector from the 2015 I-O Tables. This sector is growing due to the fact that day nurseries, etc. are shifting to this new category.

Column Code	Row Code	Sector Name
6311-02	6311-021	School education (NPI) *

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

The scope corresponds to the activities of "KINDERGARTENS" listed under Group Number 811, "ELEMENTARY SCHOOLS" listed under Group Number 812, "LOWER SECONDARY SCHOOLS" listed under Group Number 813, "UPPER SECONDARY SCHOOLS, SECONDARY SCHOOLS" listed under Group Number 814, "SCHOOLS FOR SPECIAL NEEDS EDUCATION" listed under Group Number 815, "INSTITUTION OF HIGHER EDUCATION" listed under Group Number 816, "SPECIALIZED TRAINING COLLEGES AND MISCELLANEOUS SCHOOLS" listed under Group Number 817, and "INTEGRATED CENTERS FOR EARLY CHILDHOOD EDUCATION AND CARE" listed under Group Number 819 of the Japan Standard Industrial Classification established by entities other than National University Corporation, the Institute of National Colleges of Technology, local governments, and public university corporations (excluding research activities conducted by institutions of higher education).

(Given examples)

Kindergartens, integrated centers for early childhood education and care, elementary schools, lower secondary schools, upper secondary schools, secondary education school, special needs school, specialized high schools, junior colleges, universities, special training schools, other types of school

(Changes from the 2011 I-O Tables)

(1) "INTEGRATED CENTERS FOR EARLY CHILDHOOD EDUCATION AND CARE" listed under Group Number 819 of the Japan Standard Industrial Classification are included in this sector.

(2) Research activities conducted by institutions of higher education are removed from this sector and included in relevant sectors listed under "Scientific and development research institutes."

(3) Educational activities of research institutes attached to schools are included in this sector.

(Notes)

(1) Libraries attached to schools are classified in this sector. However, hospitals and research institutes attached to schools are classified in "Medical" and "Research institutions" (except educational activities)" respectively.

(2) A new category, "Integrated centers for early childhood education and care" (legally authorized integrated school and child welfare facilities), was established in April 2015, and the relevant schools are included in this sector from the 2015 I-O Tables. This sector is growing due to the fact that day nurseries, etc. are shifting to this new category.

Column Code	Row Code	Sector Name
6311-03	6311-031	School lunch (public institution) **

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

The production activities for school meals provided for school children at compulsory public schools, in accordance with the "School Lunch Law" (No. 160 of 1954).

(Changes from the 2011 I-O Tables)

This category is moved from "Manufacturing" to "Services" in the 13-sector classification table, and from "1119 Miscellaneous foods" to "6311 School education" in the sector classification.

(Notes)

School lunch programs shall basically be implemented by the schools themselves. However, in reality there are cases in which school meals are provided by school organizations or by external organizations such as school meals centers and so forth that have been contracted. Confusion may arise if the classification is made according to meal service providers, and therefore it is made according to the educational entity that is supposed to provide the school meals service: either the "public institution" or "NPI."

Column Code	Row Code	Sector Name
6311-04	6311-041	School lunch (NPI) *

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

The production activities for school meals provided for school children at compulsory private schools, in accordance with the "School Meals Law" (No. 160 of 1954).

(Changes from the 2011 I-O Tables)

This category is moved from "Manufacturing" to "Services" in the 13-sector classification table, and from "1119 Miscellaneous foods" to "6311 School education" in the sector classification.

(Notes)

Same as "6311-03, -031 School lunch (public institution) **"

Column Code	Row Code	Sector Name
6312-01	6312-011	Social education (public institution) **

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

The scope corresponds to the activities of social educational facilities opened by the national government, local governments, and independent administrative agencies, from among "SOCIAL EDUCATION" listed under Group Number 821 of the Japan Standard Industrial Classification. To be specific, the activities refer to organizational and educational activities outside of those that are conducted according to school education curriculums.

(Given examples)

Citizens' Public hall, library, museum, art museum, zoo, botanical garden, aquarium, educational facilities for children and youths (youth's house, nature house for boys), social education by correspondence, education hall for women

Column Code	Row Code	Sector Name
6312-02	6312-021	Social education (NPI) *

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

The scope corresponds to the activities of social educational facilities opened by entities other than the national government, local governments, and independent administrative agencies, from among "SOCIAL EDUCATION" listed under Group Number 821 of the Japan Standard Industrial Classification. To be specific, the activities refer to organizational and educational activities outside of those that are conducted according to school education curriculums.

(Given examples)

Citizens' Public hall, library, museum, art museum, zoo, botanical garden, aquarium, educational facilities for children and youths (youth's house, nature house for boys), social education by correspondence, education hall for women

Column Code	Row Code	Sector Name
6312-03	6312-031	Miscellaneous educational and training institutions (public institution) **

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

The scope corresponds to the activities of employees training facilities opened by the government, local governments and independent administrative agencies, from among "Employee training facilities and supporting facilities" listed under Industry Number 8221, and the activities of "Vocational guidance centers" listed under Industry Number 8222 of the Japan Standard Industrial Classification.

(Given examples)

National Defense Academy, National Police Academy, Local Autonomy College, Meteorological College, Fire Academy, Vocational Ability Development School, National Institute for Sea Training

Column Code	Row Code	Sector Name
6312-04	6312-041	Miscellaneous educational and training institutions

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

The scope corresponds to the activities of employees training facilities opened by entities other than the government, local governments and independent administrative agencies, "Employee training facilities and supporting facilities" listed under Industry Number 8221, as well as the activities of "Educational and learning support services, n.e.c." listed under Industry Number 8299 of the Japan Standard Industrial Classification.

(Given examples)

Contract work for employee training, training school for dental hygiene specialist (other than specialized schools nor other

types of school), cooking schools (other than specialized schools nor other types of school), dressmaking schools (other than specialized schools nor other types of school), driving training school (other than specialized schools nor other types of school)

Column Code	Row Code	Sector Name
6321-01	6321-011	Research institutes for natural science (pubic institution) **

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

Research activities in the field of natural sciences conducted by the research institutes of the government, local governments and independent administrative agencies, from among "RESEARCH INSTITUTES FOR NATURAL SCIENCES" listed under Group Number 711 and schools established by national university corporations, the National Institute of Technology, local public bodies, and public university corporations that fall under "INSTITUTIONS OF HIGHER EDUCATION" listed under Group Number 816 of the Japan Standard Industrial Classification.

(Given examples)

Public universities (limited to research activities), National Institute for Materials Science, National Institute of Advanced Industrial Science and Technology, National Institute of Biomedical Innovation, Health and Nutrition, theoretical research institutes, engineering research institutes, agricultural research institutes, medical and medicine research institutes

(Changes from the 2011 I-O Tables)

(1) Research activities in the field of natural sciences conducted by national and public institutions of higher education are included in this sector.

(2) Educational activities conducted by research institutes attached to national and public schools are removed from this sector and included in "School education (public instituion) **."

(Notes)

Activities of research institutes attached to public schools (excluding educational activities) are included in this sector.

Column Code	Row Code	Sector Name
6321-02	6321-021	Research institutes for cultural and social sciences (public institution) **

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

Research activities in the field of humanities and social sciences conducted by the research institutes of the government, local governments and independent administrative agencies, from among "RESEARCH INSTITUTES FOR HUMANITIES AND SOCIAL SCIENCES" listed under Group Number 712 and schools established by national university corporations, the National Institute of Technology, local public bodies, and public university corporations that fall under "INSTITUTIONS OF HIGHER EDUCATION" listed under Group Number 816 of the Japan Standard Industrial Classification.

(Given examples)

Public universities (limited to research activities), National Education Policies Research Institute, National Institutes for the Humanities, National Institute of Social Security Research, National Institute of Population Research, Research Institute of Economy, Trade and Industry

(Changes from the 2011 I-O Tables)

(1) Research activities in the field of humanities and social sciences conducted by national and public institutions of higher education are included in this sector.

(2) Educational activities conducted by research institutes attached to national and public schools are removed from this sector and included in "School education (public institution) **."

(Notes)

Activities of research institutes attached to public schools (excluding educational activities) are included in this sector.

Column Code	Row Code	Sector Name
6321-03	6321-031	Research institutes for natural sciences (NPI) *

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

Research activities in the field of natural sciences conducted by the research institutes of the non-profit private corporations from among "RESEARCH INSTITUTES FOR NATURAL SCIENCES" listed under Group Number 711 and schools established by entities other than national university corporations, the National Institute of Technology, local public bodies, and public university corporations that fall under "INSTITUTIONS OF HIGHER EDUCATION" listed under Group Number 816 of the Japan Standard Industrial Classification.

(Given examples)

Private universities (limited to research activities), theoretical research institutes, engineering research institutes, agricultural research institutes, medical and medicine research institutes

(Changes from the 2011 I-O Tables)

(1) Research activities in the field of natural sciences conducted by private institutions of higher education are included in this sector.

(2) Educational activities conducted by research institutes attached to private schools are removed from this sector and included in "School education (NPI) *."

(Notes)

Activities of research institutes attached to private schools (excluding educational activities) are included in this sector.

Column Code	Row Code	Sector Name
6321-04	6321-041	Research institutes for cultural and social sciences (NPI) *

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

Research activities in the field of humanities and social sciences conducted by the research institutes of the non-profit private corporations from among "RESEARCH INSTITUTES FOR HUMANITIES AND SOCIAL SCIENCES" listed under Group Number 712 and schools established by entities other than national university corporations, the National Institute of Technology, local public bodies, and public university corporations that fall under "INSTITUTIONS OF HIGHER EDUCATION" listed under Group Number 816 of the Japan Standard Industrial Classification.

(Given examples)

Private universities (limited to research activities), Institute of Oriental Culture, social science research institutes

(Changes from the 2011 I-O Tables)

(1) Research activities in the field of humanities and social sciences conducted by private institutions of higher education are included in this sector.

(2) Educational activities conducted by research institutes attached to private schools are removed from this sector and included in "School education (NPI) *."

(Notes)

Activities of research institutes attached to private schools (excluding educational activities) are included in this sector.

Column Code	Row Code	Sector Name
6321-05	6321-051	Research institutes for natural sciences

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

The scope corresponds to the experimental, testing and researching activities relating to natural science conducted by research institutes except for the following entities, from among those of "RESEARCH INSTITUTES FOR NATURAL SCIENCES" listed under Group Number 711 of the Japan Standard Industrial Classification.

(1) Research institutes of the government and local governments, and research institutes established by independent administrative agencies (including research institutes attached to public schools)

(2) Research institutes opened by non-profit private corporations such as research institutes attached to private schools

(Given examples)

Theoretical research institutes, engineering research institutes, agricultural research institutes, medical and medicine research institutes

Column Code	Row Code	Sector Name
6321-06	6321-061	Research institutes for cultural and social sciences

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

The scope corresponds to the experimental, testing and researching activities relating to humanities and social sciences conducted by research institutes except for the following entities, from among those of "RESEARCH INSTITUTES FOR HUMANITIES AND SOCIAL SCIENCES" listed under Group Number 712 of the Japan Standard Industrial Classification.

(1) Research institutes of the government and local governments, and research institutes established by independent administrative agencies (including research institutes attached to public schools)

(2) Research institutes opened by non-profit private corporations such as research institutes attached to private schools

(Given examples)

Cultural and social research institutes, social science research institutes

Column Code	Row Code	Sector Name
6322-01	6322-011	Research and development (intra-enterprise)

(Ministry or agency in charge)

Ministry of Education, Culture, Sports, Science and Technology

(Definition, Scope)

The scope corresponds to creative efforts and research activities by enterprises to get new knowledge on materials, functions or phenomena, or to have existing knowledge utilized for new directions. Further, research and development activities by enterprises relating to production and manufacturing processes of products (commodities), or technical improvement thereof are included in this sector.

(Given examples)

(1) Examples refer to thoughts, ideas, gathering of information and data, proto-type production, experiment, examination, analysis and reports that are needed for activities and research. Therefore, activities of making machines, tools or devices for the researches, growing animals and plants and surveying documents are included in this sector.

(2) Examples also refer to the activities described in the aforementioned paragraph as well as engineering and manufacturing of a pilot plan and prototype with testing at other site than the entity's research laboratory or research and development division, for example at manufacturing plant.

64 Medical, health care and welfare

Column Code	Row Code	Sector Name
6411-01	6411-011	Medical service (hospitalization)

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The hospitalization activities, from among general practice as specified in "HOSPITALS" listed under Group Number 831 and "Clinics with beds" listed under Industry Number 8321 of the Japan Standard Industrial Classification.

Dentistry in hospitals and clinics of medical practitioners is included in "Medical service (dentistry)." Services with Long-Term Care Insurance are classified under "Nursing care (facility services)" or "Nursing care (except facility services)."

(Given examples)

General practice (hospitalization (excluding dentistry))

(Notes)

"8311-01, -011 Medical service (public)," "8311-02, -021 Medical service (non-profit foundations, etc.)," and "8311-03, -031 Medical service (medical corporations, etc.)" in the 2005 I-O Tables are reorganized in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
6411-02	6411-021	Medical service (except hospitalization)

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

Activities such as medical service except hospitalization, preventive care activities, and medical consultations, etc. from among general practice specified in "HOSPITALS" listed under Group Number 831 and "CLINICS OF MEDICAL PRACTITIONERS" listed under Group Number 832 of the Japan Standard Industrial Classification.

Dentistry in hospitals and clinics of medical practitioners is included in "Medical service (dentistry)." Services with Long-Term Care Insurance are classified under "Nursing care (facility services)" or "Nursing care (except facility services)."

(Given examples)

General practice (medical service except hospitalization (excluding dentistry))

(Notes)

Same as "6411-01, -001 Medical service (hospitalization)"

Column Code	Row Code	Sector Name
6411-03	6411-031	Medical service (dentistry)

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The activities of dentistry and various dental exams as specified in "HOSPITALS" listed under Group Number 831 and "DENTAL CLINICS" listed under Group Number 833 of the Japan Standard Industrial Classification.

Services with Long-Term Care Insurance are classified under "Nursing care (facility services)" or "Nursing care (except facility services)."

(Given examples)

Dentistry

(Notes)

Same as "6411-01, -001 Medical service (hospitalization)"

Column Code	Row Code	Sector Name
6411-04	6411-041	Medical service (pharmacy dispensing)

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

Pharmacy dispensing activities as specified in "Pharmacies" listed under Industry Number 6033 of the Japan Standard Industrial Classification.

Services with Long-Term Care Insurance are classified under "Nursing care (facility services)" or "Nursing care (except facility services)."

(Given examples)

Pharmacy dispensing at pharmacies and dispensing pharmacies

(Notes)

Same as "6411-01, -001 Medical service (hospitalization)"

Column Code	Row Code	Sector Name
6411-05	6411-051	Medical service (miscellaneous medical service)

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The activities of "MATERNITY CLINICS AND NURSING" listed under Group Number 834, "OTHER HEALTH PRACTITIONERS" listed under Group Number 835, and "SERVICES INCIDENTAL TO MEDICAL" listed under Group Number 836 of the Japan Standard Industrial Classification. Home nursing services carried out by hospitals and clinics of medical practitioners are included in this sector.

Services with Long-Term Care Insurance are classified under "Nursing care (facility services)" or "Nursing cBare (except facility services)."

(Given examples)

Birth centers, home nursing stations, treatment places, eye banks, bone marrow banks, sanitation inspection stations, sterilization (of medical devices), clinical examinations, etc.

(Notes)

Same as "6411-01, -001 Medical service (hospitalization)"

Column Code	Row Code	Sector Name
6421-01	6421-011	Health and hygiene (public institution) **

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to the activities by the government and local governments among those of "PUBLIC HEALTH CENTERS" listed under Group Number 841, "HEALTH CONSULTATION OFFICES" listed under Group Number 842, and "OTHER PUBLIC HEALTH AND HYGIENE" listed under Group Number 849 of the of the Japan Standard Industrial Classification.

(Given examples)

Public health centers, health consultation offices, quarantine (excluding animal and plants), medical-related examiners (parasites, water quality), meat inspection stations, dog control centers, dog control offices

Column Code	Row Code	Sector Name
6421-02	6421-021	Health and hygiene

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to the activities by entities other than the government and local governments among those of "HEALTH CONSULTATION OFFICES" listed under Group Number 842, and "OTHER PUPLIC HEALTH AND HYGIENE"

listed under Group Number 849 of the of the Japan Standard Industrial Classification.

(Given examples)

Health consultation offices, medical-related examiners (parasites, water quality), meat inspection stations, sterilizer business (articles, phones), dog control centers, dog control offices

Column Code	Row Code	Sector Name
6431-01	6431-011	Social insurance **

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

Activities related to social security funds conducted by "SOCIAL INSURANCE ORGANIZATIONS" listed under Group Number 851 of the Japan Standard Industrial Classification

(Given examples)

Social insurance work, such as national pensions, employees' pensions, mutual aid pensions, health insurance, long-term care insurance, labor insurance, etc.

(Changes from the 2011 I-O Tables)

Services that do not fall under "social security funds" included in this sector in the 2011 I-O Tables (national pension funds, National Pension Fund Association, employees' pension funds, corporate pension funds, Pension Fund Association, Farmers Pension Fund (except old pensions), Organization for Small & Medium Enterprises and Regional Innovation (Small Enterprise Mutual Relief account), Organization for Workers Retirement Allowance Mutual Aid, etc.) are removed from this sector and integrated into "5312-01, -011 Life insurance."

(Notes)

(1) Activities for hygiene facilities (recreation centers, lodging facilities) for the insured and their families by social insurance business groups are included in "6711-01, -011 Hotels"

(2) "8313-01, -011 Social Insurance (public) **" and "8313-02, -021 Social Insurance (private, non-profit) *" in the 2005 I-O Tables were integrated into this sector in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
6431-02	6431-021	Social welfare (public institution) **

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

Self-support facilities for children among "Miscellaneous vocational and educational supporting facilities" listed under Industry Number 8229, "WELFARE OFFICES" listed under Group Number 852, "Miscellaneous child welfare services" listed under Industry Number 8539, "WELFARE SERVICES FOR THE AGED AND CARE SERVICES" listed under Group Number 854, "WELFARE SERVICES FOR DISABLED PERSONS" listed under Group Number 855, and social welfare facility service activities and social welfare local service activities by the national government and local public agencies specified in "MISCELLANEOUS SOCIAL INSURANCE, SOCIAL WELFARE AND CARE SERVICES" listed under Group Number 859 of the Japan Standard Industrial Classification.

The services with Long-Term Care Insurance are classified under "Nursing care (facility services)" or "Nursing care (except facility services)."

(Given examples)

Social welfare offices, child consultation centers, children's welfare facilities (children's houses), children's nursing care facilities, self-support facilities for children, senior's nursing care home, senior's inexpensive nursing home, senior's welfare centers, support facilities for the disabled, self-training offices

(Changes from the 2011 I-O Tables)

Day nurseries classified under this sector in the 2011 I-O-Tables are removed from this sector and integrated in a new sector "6431-05, 051 Nurseries."

Column Code	Row Code	Sector Name
6431-03	6431-031	Social welfare (NPI) *

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

Self-support facilities for children among "Miscellaneous vocational and educational support facilities" listed under Industry Number 8229, "Miscellaneous child welfare services" listed under Industrial Number 8539, "WELFARE SERVICES FOR THE AGED AND CARE SERVICES" listed under Group Number 854, "WELFARE SERVICES FOR DISABLED PERSONS" listed under Group Number 855, and social welfare facility service activities and social welfare local service activities by social welfare corporations specified in "MISCELLANEOUS SOCIAL INSURANCE, SOCIAL WELFARE AND CARE SERVICES" listed under Group Number 859 of the Japan Standard Industrial Classification.

The services with Long-Term Care Insurance are classified under "Nursing care (facility services)" or "Nursing care (except

facility services)."

(Given examples)

Children's welfare facilities (children's houses), children's nursing care facilities, self-support facilities for children, private nursing homes, senior's nursing care home, senior's inexpensive nursing home, senior's welfare centers, support facilities for the disabled, self-training offices, rehabilitation facilities

(Changes from the 2011 I-O Tables)

Day nurseries classified under this sector in the 2011 I-O- Tables are removed from this sector and integrated in a new sector "6431-05, 051 Nurseries."

Column Code	Row Code	Sector Name
6431-04	6431-041	Social welfare

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to social welfare facility service activities and social welfare regional service activities by corporations and individuals, from among those of "Miscellaneous child welfare services" listed under Industrial Number 8539, "WELFARE SERVICES FOR THE AGED AND CARE SERVICES" listed under Group Number 854, "WELFARE SERVICES FOR DISABLED PERSONS" listed under Group Number 855, and "MISCELLANEOUS SOCIAL INSURANCE, SOCIAL WELFARE AND CARE SERVICES" listed under Group Number 859 of the Japan Standard Industrial Classification.

The services with Long-Term Care Insurance are classified under "Nursing care (facility services)" or "Nursing care (except facility services)."

(Given examples)

Private nursing homes, care house, support facilities for the disabled

(Changes from the 2011 I-O Tables)

Day nurseries classified under this sector in the 2011 I-O- Tables are removed from this sector and integrated in a new sector "6431-05, 051 Nurseries."

Column Code	Row Code	Sector Name
6431-05	6431-051	Nursery

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

Activities of "Day nursery" listed under Industry Number 8531

(Given examples)

Day nurseries, daycare centers for children, day-nursery-type centers for early childhood education and care, and locally certified centers for early childhood education and care

(Changes from the 2011 I-O Tables)

Day nurseries classified under "6431-02, -021 Social welfare (public) **," "6431-03, -031 Social welfare (private, non-profit) *" and "6431-04, -041 Social welfare (profit-making)" in the 2011 I-O Tables were removed from these sectors and included in this new sector.

Column Code	Row Code	Sector Name
6441-01	6441-011	Nursing care (facility services)

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The activities of facility services based on Long-Term Care Insurance, from among "HOSPITALS" listed under Group Number 831, "CLINICS OF MEDICAL PRACTITIONERS" listed under Group Number 832, "DENTAL CLINICS" listed under Group Number 833, "Nursing" listed under Industry Number 8342, "OTHER HEALTH PRACTITIONERS" listed under Group Number 835, and "WELFARE SERVICES FOR THE AGED AND CARE SERVICES" listed under Group Number 854 of the Japan Standard Industrial Classification.

(Given examples)

Welfare facilities for the elderly requiring long-term care (special nursing home for the elderly), Health care facilities for the elderly requiring long-term care, Sanatorium type medical care facilities for the elderly requiring care

Column Code	Row Code	Sector Name
6441-02	6441-021	Nursing care (except facility services)

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The activities exclusive of facility services based on Long-Term Care Insurance, from among "HOSPITALS" listed under Group Number 831, "CLINICS OF MEDICAL PRACTITIONERS" listed under Group Number 832, "DENTAL CLINICS" listed under Group Number 833, "Nursing" listed under Industry Number 8342, "OTHER HEALTH PRACTITIONERS" listed under Group Number 835, and "WELFARE SERVICES FOR

THE AGED AND CARE SERVICES" listed under Group Number 854 of the Japan Standard Industrial Classification.

(Given examples)

In-home services, community-based services, preventive care services, community-based preventive care services

(Notes)

"In-home services" include home-visit care, home nursing, outpatient care, short-stay services, etc.; "community-based services" include small multi-care facilities, home-visit at night for long-term care, outpatient long-term care for a dementia patient, etc.; "preventative care services" include outpatient preventative long-term care, outpatient rehabilitation for preventative long-term care, home-visit service for preventative long-term care, etc.; "community-based preventive care services" include multi-functional preventive long-term care in a small group home, preventive long-term care for a dementia patient in communal living, etc.

65 Membership-based associations n.e.c.

Column Code	Row Code	Sector Name
6599-01	6599-011	Membership-based business associations

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

Not-for-profit activities conducted by "AGRICULTURE, FORESTRY AND FISHERIES COOPERATIVE ASSOCIATIONS, N.E.C." listed under Group Number 871, "BUSINESS COOPERATIVE ASSOCIATIONS, N.E.C." listed under Group Number 872, and "BUSINESS AND PROFESSIONAL ORGANIZATIONS" listed under Group Number 931 of the Japan Standard Industrial Classification.

Among the activities specified in "AGRICULTURE, FORESTRY AND FISHERIES COOPERATIVE ASSOCIATIONS, N.E.C." listed under Group Number 871 and "BUSINESS COOPERATIVE ASSOCIATIONS, N.E.C." listed under Group Number 872 of the Japan Standard Industrial Classification, activities for the purpose of commercial gain, such as buying and selling, are included in the activities sector for wholesale and retail trade, and are not included in this sector.

(Given examples)

Cooperative association of fabrics, Chamber of commerce and industry, Japan Business Federation, Life Insurance Association, Japanese Bankers Association, Japan Federation of Certified Public Tax Accountants' Associations, National Federation of Small Business Associations, National Chamber of Agriculture

Column Code	Row Code	Sector Name
6599-02	6599-021	Private non-profit institutions serving households, n.e.c. *

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to the activities of "RELIGION" listed under Major Group Number 94, "LABOR ORGANIZATIONS" listed under Group Number 932, "NON-PROFIT CULTURAL, SCIENCE AND ART ORGANIZATIONS" under Group Number 933, "POLITICAL ORGANIZATIONS" listed under Group Number 934, "NON-PROFIT ORGANIZATIONS, N.E.C." listed under Group Number 939, and "MEETING HALLS" listed under Group Number 951 of the Japan Standard Industrial Classification. The sector includes the activities of non-profit

private entities providing free services or services of no-economic significance to households.

(Given examples)

Religious groups, labor groups, academic groups, cultural groups, political groups, bachelor groups, “igo” federation, prefecture citizens halls, culture halls

(Notes)

Excludes the scope of the sectors individually established as “Non-market producers (private non-profit institutions serving households) *”

66 Business services

Column Code	Row Code	Sector Name
6611-01		Goods rental and leasing (except car rental)
	6611-011	Industrial equipment and machinery rental and leasing (except construction machinery)
	6611-012	Construction machine rental and leasing
	6611-013	Electronic computing equipment rental and leasing
	6611-014	Office machines rental and leasing (except electronic computing equipment)
	6611-015	Sports goods, recreation goods and miscellaneous goods rental and leasing

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The scope corresponds to the activities of “GENERAL GOODS RENTAL AND LEASING” listed under Group Number 701, “INDUSTRIAL EQUIPMENT AND MACHINERY RENTAL” listed under Group Number 702, “OFFICE MACHINERY RENTAL” listed under Group Number 703, “SPORTS AND HOBBY GOODS RENTAL” listed under Group Number 705, and “MISCELLANEOUS GOODS RENTAL AND LEASING” listed under Group Number 709 of the Japan Standard Industrial Classification.

(Given examples)

Industrial equipment and machinery rental and leasing (except construction machinery): renting and leasing of agricultural machinery equipment, communication machinery and equipment, telephone exchange equipment, medical equipment and machines, mining machinery, metal manufacturing machines, metal processing machines, plastic molding and processing machinery, generators, measuring instruments and equipment, automatic vending machines (coin operated), showcases, cargo transporting machinery and facilities, containers, pallets, bowling machines and facilities, aircraft

Construction machine rental and leasing: renting and leasing of excavating machines and equipment, construction cranes, land grading machines, foundation construction machines, scaffolding material

Electronic computing equipment rental and leasing: renting and leasing of electronic computers, computer-related equipment, personal computers

Office machines rental and leasing (except electronic computing equipment): renting and leasing of office machines and equipment, copying machines, cash registers, filing system-related equipment, time recorders

Sports goods, recreation goods and miscellaneous goods rental and leasing: renting and leasing of sporting goods, skiing goods, skating goods, bicycles, athletic meeting gear, tents, yachts, motor boats, horses, cine-film and theater play related tools and devices, cine-film projectors, cine-films, music and video recording media (CDs, DVDs, BDs, etc.), costumes and apparels, boutiques, TVs, books, musical instruments, art goods, bed clothing, live plant, flower wreaths, pianos, medical welfare equipment

(Notes)

Activities of "GENERAL GOODS RENTAL AND LEASING" listed under Group Number 701 of the Japan Standard Industrial Classification are separately included in the activities of corresponding renting and leasing business by goods.

The renting of welfare equipment in nurse insurance are outputted from this sector via "6441-02 Nursing care (except facility services)"

Column Code	Row Code	Sector Name
6612-01	6612-011	Car rental and leasing

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The scope corresponds to the activities of "AUTOMOBILE RENTAL" listed under Group Number 704 of the Japan Standard Industrial Classification.

(Given examples)

Rent-a-car business, automobile leasing business

Column Code	Row Code	Sector Name
6621-01		Advertising services
	6621-011	Television and radio advertising services
	6621-012	Newspaper, magazine and miscellaneous advertising services

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The scope corresponds to the activities of "ADVERTISING" listed under Group Number 731 of the Japan Standard Industrial Classification.

Further, advertising activities conducted by other industrial sectors (private broadcasting, newspapers and magazines) providing advertising media are included in this sector.

(Given examples)

Newspaper, magazine and miscellaneous advertising services: newspaper advertisement, magazine advertisement, direct mailing advertisement, outdoor advertisement, traffic advertisement, insertion advertisement

Column Code	Row Code	Sector Name
6631-10	6631-101	Motor vehicle maintenance services

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The scope corresponds to maintenance, repair and recycling activities of "AUTOMOBILE MAINTENANCE SERVICES" listed under Major Group Number 891 of the Japan Standard Industrial Classification.

(Given examples)

Maintenance, repair, inspection, and registration of automobiles

(Changes from the 2011 I-O Tables)

Activities for the "accounts for motor vehicle inspection and registration" in "special account for safety of motor vehicles" are included in this sector.

(Notes)

(1) Maintenance activities of motor bicycles and motor tricycles are included in this sector.

(2) Recycling business of automobile tires shall be included in "2221-01, -011 Tires and inner tubes"

(3) Automobile inspection activities conducted by the National Agency of Vehicle Inspection shall be included in this sector.

Column Code	Row Code	Sector Name
6632-10	6632-101	Machine repair services

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The activities specified in "MACHINE REPAIR SHOPS, EXCEPT ELECTRICAL MACHINERY, APPARATUS, APPLIANCES AND SUPPLIES" listed under Group Number 901 exclusive of aircraft maintenance conducted at airports, etc. and the activities specified in "ELECTRICAL MACHINERY, APPARATUS, APPLIANCES AND SUPPLIES REPAIR SHOP" listed under Group Number 902 of the Japan Standard Industrial Classification.

(Given examples)

General machine repairs, construction machinery and mining machine repairs, electric machine repairs, industrial transportation vehicle repairs, optical equipment repairs

(Notes)

The activities of aircraft maintenance conducted at airports, etc. are included in "3592-10, -101 Repair of aircrafts."

Column Code	Row Code	Sector Name
6699-01	6699-011	Judicial, financial and accounting services

(Ministry or agency in charge)

Ministry of Finance

(Definition, Scope)

The scope corresponds to the activities of "LAWYERS' AND PATENT ATTORNEYS' OFFICES" listed under Group Number 721, "Notaries public's and judicial scriveners' offices' offices listed under Industry Number 7221, and "CERTIFIED PUBLIC ACCOUNTANTS' AND AUDITORS' OFFICES" listed under Group Number 724 of the Group Number of the Japan Standard Industrial Classification.

(Given examples)

Legal offices, patent attorney offices, notary public, judicial scrivener office, public certified accountant office, tax consultant office

Column Code	Row Code	Sector Name
6699-02	6699-021	Civil engineering and construction services

(Ministry or agency in charge)

Ministry of Land, Infrastructure, Transport and Tourism

(Definition, Scope)

The scope corresponds to the activities of "ENGINEERING AND ARCHITECTURAL SERVICES" listed under Group Number 742 of the Japan Standard Industrial Classification.

(Given examples)

Engineering supervisory services, architectural design and engineering services, architectural consultant, land measurement services, geological survey services

Column Code	Row Code	Sector Name
6699-03	6699-031	Worker dispatching services

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to the activities of "WORKER DISPATCHING SERVICES" listed under Group Number 912 of the Japan Standard Industrial Classification.

(Notes)

No provision of worker dispatch is possible for the following services.

(1) Port transport services
(2) Construction works
(3) Security services
(4) Medical related services at hospitals (partially excepted)

Since administrative and ancillary economic activities at headquarters, etc. are included in each sector and counted in Input-Output Tables, even in sectors that are closely related to (1) to (4) above, worker dispatching services may be input in work such as clerical work, etc.

Column Code	Row Code	Sector Name
6699-04	6699-041	Building maintenance services

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to the activities of "BUILDING MAINTENANCE SERVICES" listed under Group Number 922 of the Japan Standard Industrial Classification.

(Given examples)

Building service business, building maintenance service, floor polishing service, window glass cleaning service, chimney cleaning service, sterilizer service, housing disinfect service, building cleaning service, building drinking water management services, building cleaning services, building drain cleaning services

(Notes)

Sterilizer services for railways and vessels are included in this sector

Column Code	Row Code	Sector Name
6699-05	6699-051	Guard services

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The scope corresponds to the activities of "GUARD SERVICES" listed under Group Number 923 of the Japan Standard Industrial Classification.

(Given examples)

Guarding of facilities: Guard services for facilities, patrol guard services, security guard services, guard services for airport security, machine guard services

Guarding of crowds: Guard services for traffic guidance, guard services for crowds

Guarding of transport: Guard services for transport of valuables, guard services for transport of hazardous materials such as nuclear fuel

Personal guard services

Column Code	Row Code	Sector Name
6699-09	6699-099	Miscellaneous business services

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The activities of "Land and house surveyors' offices" listed under Industry Number 7222, "ADMINISTRATIVE SCRIVENERS' OFFICES" listed under Group Number 723, "CERTIFIED SOCIAL INSURANCE AND LABOR CONSULTANTS' OFFICES" listed under Group Number 725, "DESIGN SERVICES" listed under Group Number 726, "Business consultants" listed under Industry Number 7281, "MISCELLANEOUS PROFESSIONAL SERVICES" listed under Group Number 729, "MECHANICAL DESIGN SERVICES" listed under Group Number 743, "COMMODITY INSPECTION AND NON-DESTRUCTIVE TESTING SERVICES" listed under Group Number 744, "SURVEYOR CERTIFICATION" listed under Group Number 745, "MISCELLANEOUS TECHNICAL SERVICES" listed under Group Number 749, "EMPLOYMENT SERVICES" listed under Group Number 911, "STENOGRAPHIC, ENTRÉE DOCUMENT AND DUPLICATING SERVICES" listed under Group Number 921, and "BUSINESS SERVICES, N.E.C." listed under Group Number 929 of the Japan Standard Industrial Classification. The activities of National Center for University Entrance Examinations, and activities exclusive of the resource storage business conducted by the Japan Oil, Gas and Metals National Corporation are included.

(Given examples)

Stenographer, address writer, copying service, micro-filming service, commodity inspection service, silk inspection office, mass measurement certifying services, environmental measurement services, metal and mineral analysis services, private job introduction services, display related services, industrial facility cleaning services, call centers, non-destructive inspection services, plant engineering services, party entertaining services, tow truck services, LPG filling services, hot spring water supply services, designing services, management consultancy services, machine engineering services, administrative scriveners, real estate assessment services, land and building surveyors, presides, interpreters, detective agencies, credit survey agencies

(Notes)

The resource storage business conducted by the Japan Oil, Gas and Metals National Corporation is included in "6111-01, -011 Public administration (central) **."

67 Personal services

Column Code	Row Code	Sector Name
6711-01	6711-011	Hotels

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to the lodging activities except for company dormitories and student dormitories among those of "HOTELS" listed under Group Number 751, "COMMON LODGING HOUSES" listed under Group Number 752, "BOARDING HOUSES" listed under Group Number 753, and "MISCELLANEOUS LODGING PLACES" listed under Group Number 759 of the Japan Standard Industrial Classification.

(Given examples)

Hotels, inns, national lodging facilities, motels, common lodging facilities, bed houses, mountain cottages, boarding houses, membership lodging facilities, mutual aid operated lodging facilities, recreational lodging houses, youth-hostels, resort club, common lodging houses

(Notes)

(1) Souvenir shops located in inns and hotels are not included in this sector, but included in "5112-01, -011 Retail trade"

(2) Company dormitories, bachelor's housings and student dormitories among the sector of "Lodging places, n.e.c." under 7599 of the Industry Number of the Japan Standard Industrial Classification shall be included in "5531-01, -011 House rent (imputed house rent)"

(3) Eating and drinking services that are included in accommodations services and provided are included in this sector.

(4) "Resort clubs" specified in Industry Number 7592 of the Japan Standard Industrial Classification are included in this sector.

Column Code	Row Code	Sector Name
6721-01	6721-011	Eating and drinking places

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

The scope corresponds to the activities of "EATING AND DRINKING PLACES" listed under Major Group Number 76 of the Japan Standard Industrial Classification

(Given examples)

Cafeterias, restaurant, specialty restaurants, Japanese noodle ("Soba" and "Udon") restaurants, Sushi bars, drinking bars, beer halls, bars, cabaret, night clubs, Coffee shops, hamburger shop

(Changes from the 2011 Tables)

"Eating and drinking places" classified under "6721-01, -011 Eating and drinking services" in the 2011 I-O Tables are integrated into this sector.

(Notes)

Food takeout and delivery services classified under "8612-01, -011 General eating and drinking places (except coffee shops)," "8612-02, -021 Coffee shops," "8612-03, -031 Eating and drinking places for pleasure" and "6112-01, -011 Retail trade" in the 2005 I-O Tables were integrated into "6721-01, -011 Eating and drinking services" in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
6721-02	6721-021	Food takeout and delivery services

(Ministry or agency in charge)

Ministry of Agriculture, Forestry and Fisheries

(Definition, Scope)

"FOOD TAKE OUT AND DELIVERY SERVICES" listed under Major Group Number 77 of the Japan Standard Industrial Classification

(Given examples)

Food takeout and delivery services

(Changes from the 2011 Tables)

"Food takeout and delivery services" classified under "6721-01, -011 Eating and drinking services" in the 2011 I-O Tables are integrated into this sector.

(Notes)

Food takeout and delivery services classified under "8612-01, -011 General eating and drinking places (except coffee shops)," "8612-02, -021 Coffee shops," "8612-03, -031 Eating and drinking places for pleasure" and "6112-01, -011 Retail trade" in the 2005 I-O Tables were integrated into "6721-01, -011 Eating and drinking services" in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
6731-01	6731-011	Cleaning

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to the activities of "LAUNDRIES" listed under Group Number 781of the Japan Standard Industrial Classification.

(Given examples)

Laundries, Cleaning services, laundry services, cleaning factories, intermediate for laundry services, intermediate for cleaning services, linen-supply services, rental diaper services, rental towel services, rental floorcloth services, rental mop services

Column Code	Row Code	Sector Name
6731-02	6731-021	Barber shops

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to the activities of "BARBERSHOPS" listed under Group Number 782 of the Japan Standard Industrial Classification.

(Given examples)

Barber shops

Column Code	Row Code	Sector Name
6731-03	6731-031	Beauty shops

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to the activities of "HAIR-DRESSING AND BEAUTY SALON" listed under Group Number 783 of the Japan Standard Industrial Classification.

(Given examples)

Beauty parlors, beauty salon

Column Code	Row Code	Sector Name
6731-04	6731-041	Public baths

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to the activities of "PUBLIC BATHHOUSES" listed under Group Number 784 and "MISCELLANEOUS PUBLIC BATHHOUSES" listed under Group Number 785 of the Japan Standard Industrial Classification.

(Given examples)

Public baths, hot-spring baths, steam baths, sand baths, saunas, spas, mineral spring baths, health spas, deluxe public baths

(Notes)

Health centers shall be included in "6741-09, -099 Miscellaneous amusement and recreation services"

Column Code	Row Code	Sector Name
6731-09	6731-099	Miscellaneous cleaning, barber shops, beauty shops and public baths

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to the activities of "MISCELLANEOUS LAUNDRY, BEAUTY AND BATH SERVICES" listed under Group Number 789 of the Japan Standard Industrial Classification.

(Given examples)

Fulling plants, dyeing plants, aesthetic salons, coin-operated showers, laundromats, nail salons, massage brothel

(Notes)

Massage brothels, which were included in "8614-04, -041 Public baths" in the 2005 I-O Tables, were integrated into this sector in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
6741-01	6741-011	Movie theaters

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to the activities of "CINEMAS" listed under Group Number 801 of the Japan Standard Industrial Classification.

(Given examples)

Movie halls, movie theaters, outdoor movie theaters, movie theater rental and leasing services, mini theater, video theater

Column Code	Row Code	Sector Name
6741-02	6741-021	Performances (except movie theaters), theatrical comranies

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to the activities of "PERFOMANCES (EXCEPT OTHERWISE CLAASIFIED), THEATRICAL COMRANIES" listed under Group Number 802 of the Japan Standard Industrial Classification. Such activities as following

are included in the scope: entertainment providers of plays, artistic shows, music, public shows, and entertaining sports performed by themselves or on contract.

(Given examples)

Theaters, orchestra attached to theaters, musical performer groups, musical dancing team groups, comical theaters, "sumo" rings, boxing rings, ballparks (for professional baseball games), theater play performer group, arts production business, music performer group, professional baseball players group, professional wrestling performer group

Column Code	Row Code	Sector Name
6741-03	6741-031	Stadiums and companies of bicycle, horse, motorcar and motorboat races

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to the activities of "BYCYCLE, HORSE, MOTORCAR AND MOTORBOAT RACE TRACK OPERATIONS AND COMPANIES" listed under Group Number 803 of the Japan Standard Industrial Classification.

(Given examples)

Bicycle race track operations, horse race track operations, motorboat race track operations, motorcar race track operations, bicycle race companies, horse race companies.

Column Code	Row Code	Sector Name
6741-04	6741-041	Sport facility service, public gardens and amusement parks

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to the activities of "SPORTS FACILITIES" listed under Group Number 804, and "PUBLIC GARDENS AND AMUSEMENT PARKS" listed under Group Number 805 of the Japan Standard Industrial Classification.

(Given examples)

Gymnasium, golf courses, golf driving ranges, bowling alleys, tennis clubs, baseball and tennis batting ranges, fitness centers, swimming pools, ice-skating arena, public gardens, amusement parks, theme parks

(Notes)

Fitness centers, which were included in "8619-04, -041 Supplementary tutorial schools, instruction services for arts, culture and technical skills" in the 2005 I-O Tables, are integrated into this sector in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
6741-05	6741-051	Amusement and recreation facilities

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to the activities of "AMUSEMENT AND RECREATION FACILITIES" listed under Group Number 806 of the Japan Standard Industrial Classification. This sector includes activities that offer amusement to the public.

(Given examples)

Billiard rooms, "go" and Japanese chess parlors, "mah-jong" parlors, "pachinko" parlors, game centers, slot machine game parlors, bingo-game parlors, toy-gun shooting halls

Column Code	Row Code	Sector Name
6741-09	6741-099	Miscellaneous amusement and recreation services

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to the activities of "MISCELLANEOUS AMUSEMENT AND RECREATION SERVICES" listed under Group Number 809, and "AUTHORS AND ARTISTS" listed under Group Number 727 of the Japan Standard Industrial Classification. Activities of associated amusement-related services that are not elsewhere classified such as theater ticket agency, and of creation of artistic literature are included in this sector.

(Given examples)

Dance halls, marinas, recreational fishing guide business, geisha houses, "karaoke" boxes, theater ticket agency, off-track betting horse race ticket offices, off-track betting bicycle race ticket office, fishing pond services, writers, artists

Column Code	Row Code	Sector Name
6799-01	6799-011	Photographic studios

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to the activities of "PHOTOGRAPHIC

STUDIOS" listed under Group Number 746 of the Japan Standard Industrial Classification.

This sector covers the photographic activities with the other industry sectors activities such as Advertising services and Publication.

(Given examples)

Photographic services, photographic studios, commercial photographic services

Column Code	Row Code	Sector Name
6799-02	6799-021	Ceremonial occasions

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

The scope corresponds to the activities of "CREMATORIES AND GRAVEYARD CUSTODIANS" listed under Group Number 795 and "CEREMONIAL OCCASIONS" listed under Group Number 796 of the Japan Standard Industrial Classification.

(Given examples)

Funeral service providers, funeral ceremonial halls, graveyard custodians, mutual aid ceremonial cervices, wedding halls

(Notes)

The activities to carry the dead by hearse is included in "5722-01, -011 Road freight transport (except self-transport)"

Column Code	Row Code	Sector Name
6799-03	6799-031	Supplementary tutorial schools, instruction services for arts, culture and technical skills

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to the activities of "SUPPLEMENTARY TUTORIAL SCHOOLS" listed under Group Number 823 and "INSTRUCTION SERVICES FOR ARTS, CULTURE AND TECHNICALS" listed under Group Number 824 of the Japan Standard Industrial Classification.

(Given examples)

Preparatory learning classes (not classified as schools), music instructions, calligraphy instructions, flower arrangement and tea ceremony instructions, abacus instructions, foreign language instructions, sports and health instructions, other instructional services for arts, culture and technical skills

(Notes)

Following the revision of the Japan Standard Industrial Classification, fitness clubs, which were included in this sector in the 2005 I-O Tables, were integrated into "6741-04, -041 Sport facility service, public gardens and amusement parks" in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
6799-04	6799-041	Miscellaneous repairs, n.e.c.

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to the activities of "PAPER HANGERS" listed under Group Number 903 and "MISCELLANEOUS REPAIR SERVICES" listed under Group Number 909 of the Japan Standard Industrial Classification.

The activities are primarily intended for final demands, and furniture repairing and blacksmith services are included.

(Given examples)

Paper hangers, furniture repair shops, watch and clock repair shops, shoe repair shops, blacksmith shops, musical instruments repair shops, bicycle repair shops

(Notes)

(1) Industrial repairs such as machinery repairs, ship repairs, railway cart repairs, and aircraft repairs shall be included in the corresponding industry sector.

(2) The item of "bicycle tire repairs" shall be included in "6631-10, -101 Motor vehicle maintenance services"

(3) Clothes repairs shall be included in "6799-09, -099 Miscellaneous personal services"

Column Code	Row Code	Sector Name
6799-09	6799-099	Miscellaneous personal services

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to the activities of "GARDENING SERVICES" listed under Group Number 014, "DOMESTIC SERVICES" listed under Group Number 792, "GARMENT SEWING SERVICES AND REPAIRS" listed under Group Number 793, "CHECKROOMS, SAFETY DEPOSIT SERVICES" listed under Group Number 794, and "LIVING-RELATED AND PERSONAL SERVICES, N.E.C." listed under

Group Number 799 of the Japan Standard Industrial Classification.

(Given examples)

Professional landscaping services, garden plants maintenance services, domestic services, garments repair services, luggage deposit services, bicycle deposit services, food processing services, used cotton recycling services, matrimonial agency, photographic development and printing services, tourist guide services (guides), lottery ticket sales

68 Office supplies

Column Code	Row Code	Sector Name
6811-00P	6811-000P	Office supplies

(Ministry or agency in charge)

Ministry of Economy, Trade and Industry

(Definition, Scope)

The number of articles are so many that fall in the category of office supplies. Their composition will not necessarily change drastically according to production activities, and therefore, these items are collectively included in this sector as a dummy sector from analysis viewpoints.

The scope of office supplies sector corresponds to those supplies that individual industry will input as office supplies generally and commonly, and that are included in “Stationery, paper products, stationery and photographic supplies” under 93 of the Major Group Number of the Standard Commodity Classification for Japan excluding parts and components.

Further, electronic desktop calculators (except programmable type), printing papers and scissors are not included in Commodity Classification Number 93, but shall be included in this sector.

(Given examples)

Paper filing threads, copying papers, sequential slip notebooks, hardboard papers, carbon copy papers, accounting notebooks, accounting slips, envelops, spread sheets, filing supplies, photo films, photo printing papers, office starch, tapes, strings, erasers, chalks, scissors, electronic desktop calculators, writing tools, stamp pads, seal stamp pad, staplers, hole punchers, paper clips, semiconductor memory media

69 Activities not elsewhere classified

Column Code	Row Code	Sector Name
6911-00	6911-000	Activities not elsewhere classified

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The scope corresponds to the production activities of goods and services that are not elsewhere classified.

Further, this sector serves the purpose of booking accumulated errors in estimation of columns and rows sectors.

(Notes)

For residual errors in counting the row and column sectors, both the residual error of endogenous sectors and residual error of exogenous sectors are included. In Input-Output Tables of Japan, this sector is oriented as an endogenous sector, and disagreement between the row total and column total of this sector, or in other words, the final overall error is balanced at the point of intersection of "9211-000 Operating surplus" and "6911-00 Activities not elsewhere classified," and also plays the role of adjusting dual equivalence of national income.

§2 Final Demand Sectors

Column Code	Row Code	Sector Name
7111-00		Consumption expenditure outside households (column)

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to so-called "enterprise expenditures" that are similar to consumption expenditures of household including expense account and entertainment expenses that are paid by companies or other entities.

For details, refer to the explanation given in row sectors 7110-001 through 7110-003 of Gross Value Added Sector.

(Changes from the 2011 I-O Tables)

Recreational and sports-related expenses included in this sector in the 2011 I-O Tables are integrated into "7211-00 Consumption expenditures of households."

(Notes)

This sector indicates the contents of goods and services relating to expenditures of the sectors "7111-001 Lodging expenses and daily allowances", "7111-002 Social expenses" and "7111-003 Welfare expenses".

Column Code	Row Code	Sector Name
7211-00		Consumption expenditure of households

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

(1) The expenditure represents the amount of expenditure for households (consumers except private enterprises) goods and services, deducted by the amount of sales of similar kinds (used articles and scrap), then added by net increase of gifts-in-kind received from overseas, and further added by residents' expenditure in overseas. The consumption expenditures referred to herein represent all expenditures except for those spent on land, house building and construction buildings. The whole of purchase amount of goods including the amount of unused goods be recorded consumption expenditures.

(2) There are two concepts about consumption expenditures for household in national accounts calculation; one is "residents' household and non-residents' household consumption in domestic market" (DOMESTIC concept); and the

other is “consumption of residents’ household both in domestic market and in overseas” (NATION concept.) In the I-O Tables, this sector is expressed in “NATION concept”. And residents’ household consumption in overseas and non-residents’ household consumption in domestic market are shown in a separate column of “9412-00 (less) Imports (direct purchase)” and “9212-00 Exports (direct purchase)” respectively. This way of presentation has the following benefits.

1 Both concepts regarding household consumption make available in the national accounting.

2 The I-O Tables as a whole can be convertible to “DOMSTIC concept” basis. Further, refer to “8412-00 (less) Imports (direct purchase)”and “8012-00 Exports (direct purchase)” for the conversion.

(3) Overseas gifts-in-kind (gifts that an individual receives from overseas) and overseas consumption expenditure (residents’ consumption of goods and services in overseas) shall once be recorded in import columns, and then transferred to demand side column, consumption expenditure of household.

(4) Transactions of used goods are divided in a transaction within the household sector, and a transaction between sectors such as capital formation or non-market producer (general government).

In former case, trade amount of used goods is cancelled out, and only related trade margin and freight cost are recorded. In latter case, however, trade amount from a household is recorded as negative consumption expenditure of household. On the contrary, purchase amount of used goods that a household purchases from other sector shall be recognized as consumption expenditure of the household sector, and the same shall be recognized of its sales amount as negative expenditure of the selling sector.

(5) For medical services and care services, the amount shared by a household shall be recorded.

(6) Benefit-in-kind (commuting allowance) shall be included in consumption expenditure of households. Therefore, served meals arranged by enterprises and the Self Defense Force shall be treated as consumption directly by household. Further, served meals by jails shall be treated as government consumption of materials for food and beverage, and are not included in consumption expenditure of household.

(7) Cost of materials used in foods and beverages that are provided to households by restaurants, hotels, amusement centers and hospitals is first recorded as intermediate input in the respective sectors and then as output from these sectors to the “Consumption expenditure of households” sector.

(Changes from the 2011 I-O Tables)

Recreational and sports-related expenses included in “7111-00 Consumption expenditure outside households (column)” in the 2011 I-O Tables are integrated into this sector.

(Notes)

As FISIM (Financial Intermediation Services Indirectly Measured) was introduced in the “Financial service” sector in the 2011 I-O Tables, FISIM purchased by households is counted.

Column Code	Row Code	Sector Name
7212-00		Consumption expenditure of private non-profit institutions serving households

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The expenditure represents costs that were borne by private non-profit institutions serving households among those that relate to goods and services supplied at price of no-economic significance. Namely, it is equal to the difference between: the production value (appraised by cost required for production) of services supplied by non-market producers (private non-profit institutions serving households) *; and the sales of goods and services at prices of no economic significance and gross fixed capital (research and development) formed at their own expense. Therefore, it is the production value of non-market producers (private non-profit institutions serving households) * less output to other sectors.

(Changes from the 2011 I-O Tables)

(1) Research and development expenditures of non-market producers (non-profit institutions serving households) * is moved to “7511-00 Gross domestic fixed capital formation (private).”

(2) Consumption of fixed capital of research and development, etc. by non-market producers (non-profit institutions serving households) is newly included in this sector.

Column Code	Row Code	Sector Name
7311-01		Collective consumption expenditure of central government

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The expenditure represents costs that were borne by the central government themselves that relate to collective services provided (diplomatic and national defense services) at price of no-economic significance. Namely, it is equal to the difference between: the production value (appraised by cost required for production) of collective services supplied by non-market producers (general government) ** classified as the central government; and the sales of goods and services at prices of no economic significance and gross fixed capital (research and development) formed at their own expense. Therefore, it is equal to the value of collective services consumed by the central government.

(Changes from the 2011 I-O Tables)

(1) Research and development expenditures of non-market producers (general government) ** classified as central government is moved to "7411-00 Gross domestic fixed capital formation (public)."

(2) Non-market output of the Central Bank in the "Financial service (FISIM), public" sector is removed from the financial service sector and recorded as intermediate input in the "Public administration (central) **" sector. Accordingly, the increase in domestic production in the "Public administration (central) **" sector calculated based on total production is included in this sector.

Column Code	Row Code	Sector Name
7311-02		Collective consumption expenditure of local government

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The expenditure represents costs that were borne by local governments themselves that relate to collective services provided (services provided for overall society such as diet, and police) at price of no-economic significance. Namely, it is equal to the difference between: the production value (appraised by cost required for production) of collective services supplied by non-market producers (general government) ** classified as the local government; and the sales of goods and services at prices of no economic significance and gross fixed capital (research and development) formed at their own expense. Therefore, it is equal to the value of collective services consumed by the local government.

(Changes from the 2011 I-O Tables)

Research and development expenditures of non-market producers (general government) ** classified as local government are moved to "7411-00 Gross domestic fixed capital formation (public)."

Column Code	Row Code	Sector Name
7311-03		Individual consumption expenditure of central government

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The expenditure represents costs that were borne by the central government themselves that relate to individual goods and services provided (goods and services provided for an individual such as education, health and hygiene) at price of no-economic significance. Namely, it is equal to the difference between: the production value (appraised by cost required for production) of individual services provided by non-market producers (general government) ** classified as the central government; and the sales of goods and services at prices of no economic significance (in other words, the self-consumed value of individual services by the central government), plus benefits-in-kind of school textbooks for households and insurance benefits for medical and nursing care services for households.

(Notes)

Expenditures for long-term care insurance benefits (except municipal special benefits) is included in this sector.

Column Code	Row Code	Sector Name
7311-04		Individual consumption expenditure of local government

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The expenditure represents costs that were borne by local governments themselves that relate to individual goods and services provided (goods and services provided for an individual such as education, health and hygiene) at price of no-economic significance. Namely, it is equal to the difference between: the production value (appraised by cost required for production) of individual services provided by non-market producers 'general government) ** classified as local government service producers that are classified as the local government; and the sales of goods and services at prices of no economic significance. Therefore, it is equal to the value of

individual services consumed by the local government.

(Notes)

Special municipal benefits of nursing care insurance shall be recorded in this sector

Column Code	Row Code	Sector Name
7321-01		Collective consumption expenditure of central government (CFC of social fixed capital)

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to depreciated fixed capital relating to collective services provided by the central government at no-economic significance (the scope of "7311-01 Collective consumption expenditure of central government").

(Changes from the 2011 I-O Tables)

Consumption of fixed capital of research and development, etc. by non-market producers (general government) ** classified as central government is newly included in this sector.

(Notes)

Market valuation was introduced in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
7321-02		Collective consumption expenditure of local government (CFC of social fixed capital)

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to depreciated fixed capital relating to collective services provided by the local government at no-economic significance (the scope of "7311-02 Collective consumption expenditure of local government").

(Changes from the 2011 I-O Tables)

Consumption of fixed capital of research and development, etc. by non-market producers (general government) ** classified as local government is newly included in this sector.

(Notes)

Market valuation was introduced in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
7321-03		Individual consumption expenditure of central government (CFC of social fixed capital)

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to depreciated fixed capital relating to individual goods and services provided by the central government at no-economic significance (the scope of "7311-03 Individual consumption expenditure of central government").

(Notes)

Market valuation was introduced in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
7321-04		Individual consumption expenditure of local government (CFC of social fixed capital)

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The scope corresponds to depreciated fixed capital relating to individual goods and services provided by the local government at no-economic significance (the scope of "7311-04 Individual consumption expenditure of local government".

(Notes)

Market valuation was introduced in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
7411-00		Gross domestic fixed capital formation (public sector)

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

(1) Acquisition (by means of purchase, transfer of ownership, etc.) by non-market producers (general government) ** or public enterprises of domestic fixed assets, such as buildings, machines, devices, defense equipment, intellectual property products (including research and development, software), etc., including expenses required for acquisition, installation cost, freight margins, trade margins for acquisition of used assets, commission fees for brokering service, and other direct expenses.

The scope is limited to assets that are produced through manufacturing process. Therefore, non-material assets such as goodwill are not included in the scope. Land is non-produced asset and is, therefore, not included in fixed asset formation. However, land preparation and improvement work costs excluding land purchase price are recorded in

this sector. Restoration costs required for removal and the disposal of assets are also included in this sector.

(2) Capital goods that are repeatedly or continuously used for production for a period of longer than one year are defined as fixed assets, provided, however, that purchase of inexpensive and constantly available products such as hand tools is treated as regular transaction and is not included in fixed asset formation.

(3) Regular maintenance and repair works are not classified as capital formation. However, incidental large-scale repair and improvement works by that the asset life is extended shall primarily be recorded as capital formation. Rails of railways and tramways, power transmission and distribution facilities, signaling facilities, telecommunication cables, and replacement work of power transmission and distribution facilities shall be recorded as capital formation.

(4) Assets requiring long production period (long-term products) shall be recorded as inventory until the users obtain their titles. Regarding self-accounts (capital production of self-use), progressed portion of works, even if they are works-in-process, shall be recorded as capital formation because the user owns the works. Construction-in-process is, however, recorded as capital formation for the progressed portion even if the titles are not yet transferred.

Livestock for working, breeding, milking, racing and wool-fabricating that provide capital services shall be recorded in capital formation according to their degree of growth. However, the portion of degree of growth shall be recorded as inventory when the livestock are specifically grown by producers for sale. Plants such as fruit trees, mulberry, and tea trees that provide capital services are recorded in self-accounts, booking the portion of degree of growth as capital formation.

(5) Regarding capital formation either by direct booking or by indirect booking through constructions for goods attached to constructions and vessels (hereinafter called "constructions"), the goods that payment thereof are made by contractors and the cost thereof are included in their production value shall be indirectly booked as capital formation via constructions. If payment mode is unclear, goods that can function by themselves shall be treated as capital formation. Goods that cannot function without being combined with constructions shall be treated as indirect capital formation via constructions.

(Changes from the 2011 I-O Tables)

(1) Following the recommendation of the 2008 SNA to treat R&D and defense equipment as capital, the definition and scope of this sector are expanded.

(2) Output of building renovations in the "Repair of construction" sector involving the enhancement of the functionality and/or life expectancy of buildings is treated as a fixed asset and included in the said sector.

(Notes)

Goods whose useful life is less than one year and whose purchase price is less than 100,000 yen, which are treated as petty sum depreciable assets under tax law, may not be recorded as fixed assets in the basic statistical data used for the estimation of output value. In this case, goods that have been used for more than one year are included in this sector if the unit price is more than 100,000 yen, and in the relevant endogenous sectors if the unit price is less than 100,000 yen.

Column Code	Row Code	Sector Name
7511-00		Gross domestic fixed capital formation (private sector)

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

Acquisition (by means of purchase, transfer of ownership) of domestic fixed assets, such as buildings, machines, devices, intellectual property products (including research and development, software), etc.; the scope of "Gross domestic fixed capital formation (private)" is same as that of "7411-00 Gross domestic fixed capital formation (public)". The main bodies that exercise capital formation are market producers (excluding public enterprises) and non-market producers (private non-profit institutions serving households) *. Home ownership costs for: the acquisition of buildings and structures; renovations involving the enhancement of the functionality and/or life expectancy of buildings; and land preparation and improvements are treated as costs required for the production of self-consumed housing services (house rent [imputed rent]) and thus included in this sector.

(Changes from the 2011 I-O Tables)

(1) Following the recommendation of 2008 SNA to treat R&D as capital and elaborate on the treatment of cost of ownership transfer, the definition and scope of this sector are expanded.

(2) The output of building renovations in the "Repair of construction" sector involving the enhancement of the

functionality and/or life expectancy of buildings is treated as a fixed asset and included in the said sector.

Column Code	Row Code	Sector Name
7611-01		Increase in producer's stocks of finished goods

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The sector shows volume increases or decreases of product inventory by producers defined as products before sold or shipped (excluding construction buildings) that are appraised by annually averaged market prices.

(Notes)

One-time productions of plants and animals with over one year production period such as livestock grown for butchery and growing trees for timbers are included in "7611-02 Increase in semi-finished goods and work-in-progress" for the portion of degree of growth.

Column Code	Row Code	Sector Name
7611-02		Increase in semi-finished goods and work in progress

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

The sector shows volume increases or decreases of semi-finished products or products of work-in-progress that are appraised by assumed annual averaged market prices.

Such products are defined as products that are partially processed, assembled, or on growing by goods production industries, and that are unable to be sold, shipped or delivered to other businesses without additional processing (excluding self-accounts and construction work-in-progress.)

(Notes)

The grown portion of one-time productions of plants and animals with over one year production period such as livestock grown for butchery and growing trees for timbers shall be included in this sector. Also increase of the goods that are owned by professional producers that grow and deliver goods not for their own use even if classified as fixed capital formation shall be included in this sector.

Column Code	Row Code	Sector Name
7611-03		Increase in dealer's stocks of goods

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

This represents goods acquired by producers that are classified as wholesalers or retailers and their volume increases or decreases appraised by annual average market price.

(Notes)

Other business sectors than those classified as wholesalers or retailers are not outputting to this sector. However, the national petroleum reserve by Japan Oil, Gas and Metals National Corporation shall be exceptionally treated as dealer inventories.

Column Code	Row Code	Sector Name
7611-04		Increase in stocks of raw materials and supplies

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

This represents volume increases or decreases of raw materials appraised by annual average market prices. Row materials are referred to one of the followings.

(1) All of raw materials, resources, parts and components and/or stocks that are acquired for processing, manufacturing, assembling or repairing of commodity goods, or for construction works

(2) Coals, petroleum and other fuels that are purchased for consumption

(3) Fertilizers, agricultural chemicals, seeds, feeds and similar kinds for agricultural producers

(4) Non-endurable containers, packing materials at packaging plants, stationery and other stocks that are purchased

(5) Ammunition owned by the Ministry of Defense

(6) Others

(Changes from the 2011 I-O Tables)

Following the recommendations of the 2008 SNA to treat defense equipment as capital, the definition and scope of this sector are expanded.

(Notes)

(1) Production volume of non-market producers (general government) ** shall be estimated by aggregating expenses needed for these activities. Intermediate input expenditures, however, are recorded in such that new purchases of goods

and services in current accounts deducting net sales amount of used goods and scrap of same kinds as intermediate consumption for production volume estimation. The output goes to consumption expenditures either by the central government or local governments after deducting sales amount to other sectors (tuition fees of public schools, for example.) Therefore, the calculated amount that are considered as materials inventory of non-market producers (general government) ** in contrast to market producers are actually recorded in the consumption expenditure of central government and in the consumption expenditure of local governments. They are not included in the increase in stocks of raw materials and supplies. However, ammunition owned by the Ministry of Defense is included in this sector as stated in the "definition and scope."

(2) Non-market producers (Private nonprofit institutions serving households) * are also treated in a similar manner as non-market producers (general government) **.

Column Code	Row Code	Sector Name
8011-01		Exports (ordinary trade)

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The sector is stipulated and defined as "transactions of goods between residents and non-residents" and the scope corresponds to the goods recorded in the trade statistics compiled by the Ministry of Finance.

However, from the perspective of counting net exports (exports of goods produced in Japan in the corresponding year), re-exported goods (goods that are exported after being imported, without being demanded domestically; in other words, goods that are not domestic products) and exports that are presumed to be re-imported (actual state does not differ from a domestic product being demanded domestically) are deducted. With regard to calligraphic works, antiques, used tires, used automobiles, etc., only the margin equivalent is counted.

Further, the followings are outside of export statistics and not able to be captured as data. Therefore, the followings are excluded from the scope.

(1) Small cargo (less than ¥200,000 in value per cargo)

(2) Samples and gifts

(3) Cargoes relating to military forces stationed in Japan.

(4) Exhibition goods for expositions and trade fairs

(5) Cargoes treated as special trade or direct purchase items

Appraisal of "export (ordinary trade)" is made on FOB (Free-on-board) price basis.

(Given examples)

Articles handled in trade statistics (partially excepted)

(Changes from the 2011 I-O Tables)

Consumption tax levied in the process of the domestic distribution of exported goods, which was classified separately under "7711-00 Balancing sector" in the 2011 and earlier I-O Tables, is included in this sector in the 2015 I-O Tables. As the consumption tax classified under the balancing sector is refunded, it is recorded as negative values at the intersection of "5111-011 Wholesale trade" to prevent the overstatement of exports.

(Notes)

In trade statistics, exports are valuated using a FOB price basis, and this basis is also used for this sector. However, FOB prices include the trade margins and domestic freights that were used in the span from the production factory to actual vessel within the monetary amount of a good, and are considered as being equivalent to purchasers' price.

As a result, when recording in producers' price valuation tables, the values from which trade margins and domestic freights were subtracted are counted for each good, in the same manner as in the said valuation tables. The trade margins and domestic freights for each good are collectively counted in the commerce and transport sectors.

Column Code	Row Code	Sector Name
8011-02		Exports (special trade)

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The scope is "transactions of services and goods not counted in ordinary trade between residents and non-residents," and the main scope consists of, from among the Balance of Payments Statistics compiled by the Bank of Japan, the balance on services for which receipt and payment of compensation for services that are provided between residents and non-residents is recorded, less (1) the estimated scope of "exports (direct purchase)" and (2) building maintenance services, etc.

Cargo freights and freight insurance are considered as being "transport (insurance) services that are provided (exported) in a condition of trade by a Japanese business operator," regardless of whether the revenue from cargo freights (net insurance premium) received by a Japanese transport (insurance) business operator in relation to cargo freights and freight insurance is from imported

goods or exported goods, or whether the paying party is a resident or non-resident. All are considered as export of cargo freights and freight insurance, and counted in this sector.

Correspondence (outline) between Balance of Payments Statistics and input-output tables is as shown in the table in "8411-02 (less) Imports (special trade)."

(Given examples)

Cargo freight, passenger freight, port expenses, consumption of goods and services on business trip, international phone calls, cargo insurance, agent commissions, advertising expenses, and other service-related transactions by private sector

(Notes)

Consumption of goods and services on sightseeing trips shall be included in "8012-00 Exports (direct purchase)"

Column Code	Row Code	Sector Name
8012-00		Exports (direct purchase)

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The scope corresponds to "direct transactions of goods and services in domestic market by non-resident households."

Other final demand sectors than "7211-00 Consumption expenditure of households" are described on domestic concept. However, consumption expenditures of households are defined based on national concept. Therefore, a sector that adjusts two different concepts is needed converting it to domestic concept that I-O Tables stand on.

Should a sector be established that converts from nation consumption expenditure by households to domestic consumption expenditure by households, the total sum of final demands becomes equal to total sum of domestic expenditure. Thus, domestic concept can be maintained with I-O Tables.

The sector "Export (direct purchase)" plays such roles.

(Given examples)

Consumption by foreign persons traveling to Japan (with a purpose other than business, such as sightseeing) in Japan, individual spending by diplomatic mission members, individual spending by military personnel stationed in Japan

(Notes)

Conversion equation to convert "7211-00 Consumption expenditure of households" to domestic concept

Consumption expenditure of households（DOMSTIC concept）
＝Consumption expenditure of households（NATION concept）
＋Exports (direct purchase)－Imports (direct purchase)

Column Code	Row Code	Sector Name
8411-01		(less) Imports (ordinary trade)

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The sector is stipulated and defined as "transactions of goods between residents and non-residents" and the scope corresponds to the goods recorded on trade statistics that are compiled by the Ministry of Finance.

However, from the perspective of counting net imports (exports of goods produced in foreign countries and demanded in Japan in the corresponding year), re-imported goods (goods that are imported after being exported, without being demanded abroad; in other words, goods that are produced in Japan) and imports that are presumed to be re-exported (import of goods that are exported without being demanded in Japan) are deducted. Calligraphic works, antiques, used tires, used automobiles, etc., are deducted.

Further, the followings are outside of ordinary trade statistics and not able to be captured as data. Therefore, the followings are excluded from the scope.

(1) Small cargo (less than ¥200,000 in value per cargo)

(2) Samples and gifts

(3) Cargoes relating to military forces stationed in Japan.

(4) Exhibition goods for expositions and trade fairs

(5) Cargoes treated as special trade or direct purchase

Appraisal of "(less) import (ordinary trade)" is made on CIF price basis.

(Given examples)

Articles handled in trade statistics (partially exempted)

Column Code	Row Code	Sector Name
8411-02		(less) Imports (special trade)

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The scope is "transactions of services and goods not counted in ordinary trade between residents and non-residents," and the main scope consists of, from among the Balance of Payments Statistics compiled by the Bank of Japan, the balance on services

for which receipt and payment of compensation for services that are provided between residents and non-residents is recorded, less (1) the estimated scope of "imports (direct purchase)" and (2) building maintenance services, etc.

Cargo freights and freight insurance are considered as being "transport (insurance) services that are provided (exported) in a condition of trade by a Japanese business operator," regardless of whether the revenue from cargo freights (net insurance premium) received by a Japanese transport (insurance) business operator in relation to cargo freights and freight insurance is from imported goods or exported goods, or whether the paying party is a resident or non-resident. All are counted in "8011-02 Exports (special trade)" as export of cargo freights and freight insurance, and counted in this sector. For example, with regard to transport of imports by a Japanese transport business operator, revenue is not counted in this sector even if it is earned (if it is counted in this sector, domestic production decreases, despite there being revenue).

Payment of charter vessel fees and charter aircraft fees to foreign transport business operators is counted in this sector, however, such payments are inputted directly to their own sectors for international shipping and international air transport, and are thus cancelled out in terms of row sectors.

Correspondence (outline) between Balance of Payments Statistics and input-output tables is as shown below.

	Balance of Payments Statistics				I-O Tables	
	Cargo freight		Cargo insurance		Freight and insurance	
	Export	Import	Export	Import	Export	Import
Activities by Japanese transport (insurance) companies Relating to exports						
Paid by exporters (residents)	○		○		○	
Paid by importers (non-residents)	○		○		○	
Relating to imports Paid by exporters (residents)					○	
Paid by importers (non-residents)					○	
Multinational transport between three countries	○		○		○	
Activities by foreign transport (insurance) companies						
Relating to exports Paid by exporters (residents)						
Paid by importers (non-residents) Relating to imports						
Paid by exporters (residents)		○		○		
Paid by importers (non-residents)		○		○		

(Given examples)

Cargo freight, passenger freight, port expenses, consumption of goods and services on business trip, international phone calls, cargo insurance, agent commission, advertisement expenses, films and tapes rental fees, other service-related transactions by private sector

(Notes)

(1) Import articles in the ordinary trade in I-O Tables are appraised on CIF prices. Therefore, booking import of cargo freight and cargo insurance in special trade causes duplicated booking. As a result, cargo freights and insurance are not counted in imports (special trade) in I-O Tables, with the exception of some exceptions such as charter vessel fees and charger aircraft fees.

(2) Consumption of goods and services on sightseeing trips shall be included in "8412-00 (less) Imports (direct purchase)"

Column Code	Row Code	Sector Name
8412-00		(less) Imports (direct purchase)

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

The scope corresponds to "direct transactions of goods and services in overseas market by resident households."

Other final demand sectors than "7211-00 Consumption expenditure of households" are described on domestic concept. However, consumption expenditures of households are defined based on national concept. Therefore, a sector that adjusts two different concepts is needed converting it to domestic concept that I-O Tables stand on. Should a sector be established that converts from nation consumption expenditure by households to domestic consumption expenditure by households, the total sum of

final demands becomes equal to total sum of domestic expenditure. Thus, domestic concept can be maintained with I-O Tables. The sector “Import (direct purchase)” plays such roles.

(Given examples)

Local consumption by Japanese visitors to foreign countries (with a purpose other than business, such as sightseeing), individual spending by diplomatic mission members

(Notes)

Conversion equation to convert “7211-00 Consumption expenditure of households” to domestic concept

> Consumption expenditure of households （DOMSTIC concept） ＝Consumption expenditure of households （NATION concept） ＋Exports (direct purchase)－Imports (direct purchase)

Column Code	Row Code	Sector Name
8511-00		(less) Custom duties

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

Import articles are levied of customs duties from trade policy considerations based on Customs Tariff Table. This works for squeezing price gaps between inexpensive import products and expensive domestic products by appraising import products at the same price level of domestic products. Thus, a “Custom duties” sector was established separate from “Imports” sector, clarifying the amount related to imported goods.

Refunds that are provided in cases corresponding to certain conditions after paying taxes are included in total custom duties, due to restrictions with the basic data. Regarding vessels that are re-imported, the transactions are recorded as cancellation of imports and therefore no customs duties are recorded.

(Notes)

For the transaction values of imported goods, the total of ordinary trade, custom duties, and commodity taxes on the imported goods are recorded in the respective sectors of the I-O Tables.

Column Code	Row Code	Sector Name
8611-00		(less) Commodity taxes on imported goods

(Ministry or agency in charge)

Ministry of Internal affairs and Communications

(Definition, Scope)

Imported goods are levied of consumption tax as inland tax same as the case of domestic goods, alcohol tax, tobacco tax, gasoline tax, local road tax, petroleum gas tax and petroleum gas on customs clearance in addition to customs duty.

As a part of clarifying the amount of imported goods, this sector was established as a column sector in the same manner as “8511-00 (less) Custom duties,” with these taxes as the scope.

(Given examples)

Alcohol tax, tobacco tax, gasoline tax, local gasoline tax, local road tax, petroleum gas tax, petroleum tax and consumption tax on imported goods

§3 Gross Value Added Sectors

Column Code	Row Code	Sector Name
	7111-001	Lodging expenses and daily allowances
	7111-002	Social expenses
	7111-003	Welfare expenses

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

Consumption expenditure outside households is so-called "corporate consumption" and the scope corresponds to expenditures paid by corporations and other entities such as expense accounts and entertainment expenses similar to those paid by households, including welfare expenses (excluding the ones that are recorded in other gross value added sectors), expense accounts and entertainment expenses as well as trip expenses paid but excluding transport fares (primarily staying and daily allowances.)

(1) Staying and daily allowance

This corresponds to daily allowance payable to directors or employees of expenses needed for trips of business management and of sales and for trips of transfer, staying charges and preparation allowance for transfer, transfer allowance and nursing allowance.

(2) Expense accounts

The expenses refer to such expenses of entertaining, inviting, soliciting, giving fits to customers, suppliers and other business related persons or similar actions. This does not include expenses for employees.

However, expenses for year-end and year-beginning parties for directors or managers, expenses entertaining finance personnel, and party expenses after department meetings are included in expense accounts as exceptions.

(3) Welfare expenses

They consist of health, hygiene, and medical service expenses (expenses needed for medical services for employees such as those for goods and services to maintain operations of related facilities), etc.

Further, personnel cost for employees that corporations directly hire to operate welfare facilities, depreciation cost thereof and indirect taxes are not included in this sector, but are included in "9111-000 through 9113-000 Compensation of employees", "9311-000 Consumption of fixed capital" and "9411-000 Indirect taxes (except custom duties and commodity taxes on imported goods)" respectively.

(Changes from the 2011 I-O Tables)

Recreational and sports-related expenses included in this sector in the 2011 I-O Tables are integrated into "9113-000 Miscellaneous payments and allowances."

(Notes)

(1) Activities relating to lodging and recreational facilities that corporations provide for their employees are included in "6711-01 Hotels", and similarly activities relating to staying lodges, company housings for bachelors, and for students are included in "5531-01 House rent (imputed house rent)".

Further, costs of food materials or corporate spending that supplements expenses for outsourcing among employees' canteen expenses shall be included in compensation of employees ("9113-000 Miscellaneous payments and allowances") as a sort of "salaries-in-kind". Therefore, employee's share as well as corporate share shall be treated in the way that "7211-00 Consumption expenditure of households" shall input individual foods materials or "Eating and drinking places."

(2) "7111-00 Consumption expenditure outside households (column)" (domestic production of column sector) matches the total of "7111-001 Lodging expenses and daily allowances," "7111-002 Social expenses," and "7111-003 Welfare expenses" (total of domestic production for row sectors).

Column Code	Row Code	Sector Name
	9111-000	Wages and salaries
	9112-000	Contribution of employers to social insurance
	9113-000	Miscellaneous payments and allowances

(Ministry or agency in charge)

Ministry of Health, Labour and Welfare

(Definition, Scope)

(1) Scope of compensation of employees

Compensation of employees refers to all income of cash and in kind that are paid as compensation to work to the employed by private sectors and governments domestically. The incomes referred herein are recorded on employer's payment basis, and not on employee's receipt basis. Further, salaries shall be recorded as compensation of employees in the specified payment period of relevant entities regardless

whether the said wages and salaries are paid on time or delayed in order to capture and recognize correctly due income for due period (accrual basis.) Furthermore, compensation of employees are recognized on domestic concept, and therefore, compensation of employees incurred domestically is the compensation of employees regardless whether an employee is resident or non-resident.

The scope of compensation of employees covers incomes (wages and salaries, social insurance premium (employer's share), and other compensation and allowances) of directors on payroll, regular workers, temporary and day-workers. Incomes of self-support owners are included in business surplus.

(2) Contents of items included in compensation of employees

Compensation of employees includes every and all items that can be considered as rewards to works done by employees. In addition, a system of national accounts is taken into consideration, driving at the following items that consist of Compensation of employees.

1 Wages and salaries

A) Wages for regular workers, Wages for temporary and day-workers

This refers to pay amount of an employer before deducting taxes and social insurance premium (employer share). This also includes marriage and condolence money that are obligatorily specified in employees policy manuals, or labor agreements, and tips that are redivided by an employer after collection.

When marriage and condolence money are specified in employees manuals or labor agreement, it is included in wages and salaries. Items under "Marriage and condolence money" are following:

a) Happy money for marriage
b) Happy money for childbirth
c) Happy money for school initiation
d) Condolence money for death
e) Sadness money for injury
f) Sadness money for casualties

There are two kinds of "tips"; the one that a guest gives directly to an employee; the other that a tip from a guest is divided by an employer to an employee. A tip due to an employee is basically cash given by a guest other than a specified amount of charges and is a continued revenue source. Therefore, aforementioned two kinds of tips can both be considered as wages and salaries. However, the latter was only included in the income, and the former has been considered as a cash transfer from a guest to an employee.

The compensation for national diet representatives and for local diet representatives (Annual allowance for diet representatives) is treated as the wages for regular workers.

B) Compensation of directors

This refers to the amount payable to corporate directors as corporate expense cost.

2 Social insurance premium (employer share)

a) Health insurance managed by the Japan Health Insurance Association (including day-worker insured under special provision)
b) Health insurance managed by unions
c) Employees' pension insurance
d) Seamen's insurance
e) Mutual aid for private school personnel
f) Employment insurance
g) Workers' casualties compensation insurance
h) Child allowance
i) National public service personnel mutual aid association
j) Pension fund association for local government officials
k) Government employees' accident compensation
l) Casualties compensation fund for local government officials

Insurance premiums for health insurance include insurance premiums for medical care and nursing care.

Furthermore, the payment amount of accident compensation based on the "Labor Standards Act" and casualties compensation for government officials of the national and local governments as in k) and l) shall be the social insurance premium (paid for by employer)

3 Miscellaneous payments and allowances

a) Installments and allowances for retirement pensions, allowances for lump-sum retirement

Installments and allowances for retirement pensions refer to: service costs for the defined-benefit corporate pension plan (retirement benefits recognized as having accrued as compensation for labor during a fixed period); expenses for the operation of the relevant pension plan; installments to the Smaller Enterprise Retirement Allowance Mutual Aid System, etc.; and installments to defined contribution pension plan (corporate type).

Allowances for lump-sum retirement consist of the employer's reserved amount for the funded pension plan based on mutual aid contracts for retirement allowance, and the retirement allowance actually paid by the employer other than based on the funded pension plan.

b) Wage-in-kind

This refers to the cost borne by employers when served meals, commuting pass and corporate products are provided.

c) Housing rent difference

When an employee lives in a corporate supported housing, the difference between the market rent charge and the rent that the employee pays is deemed as wage-in-kind.

d) Added benefits of social insurance

Employers' costs that are paid on top of legal payments from the employer to employee, regarding payment of social insurance. Examples consist of compensation other than legal compensation for workmen's compensation insurance and added benefits for health insurance managed by unions.

e) Expenses for assets building

This refers to an employer's cost for the benefit of an employee.

f) Recreational and sports-related expenses

The expenses of recreational activities of employees and their families and recreational facilities

g) Employee stock option plan

This is an employee benefit plan under which the company offers employees the right to buy a certain number of shares of the company's stock at a set price (exercise price) on the specified date (vesting date) or within a specified period following the vesting date (vesting period).

(Changes made from the 2011 I-O Tables)

(1) Service costs for the defined-benefit corporate pension plan (retirement benefits recognized as having accrued as compensation for labor during a fixed period) and expenses for operation of the relevant pension plan are included in "9113-000 Miscellaneous payments and allowances" to replace: Employees' Pension Fund classified under "9112-000 Contribution of employers to social insurance;" and installments to additional benefits for the Employees' Pension Fund and installments to the defined-benefit corporate pension plan classified under "9113-000 Miscellaneous payments and allowances" in the 2011 I-O Tables.

(2) Recreational and sports-related expenses classified under "7111-003 Welfare expenses" in the 2011 I-O Tables are included in "9113-000 Miscellaneous payments and allowances."

(3) The employee stock option plan is included in "9113-000 Miscellaneous payments and allowances."

(Notes)

Directors' bonuses were integrated into the "Wages and salaries" sector in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
	9211-000	Operating surplus

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

(1) The scope corresponds to the value of gross value added deducted by consumption expenditure outside households, compensation of employees, capital depreciation reserve, and pure indirect taxes (indirect taxes minus subsidies.)

(2) Income of an individual business or a family employee without pay shall be recorded as business surplus, not as compensation of employees

(3) Since it is defined in such that production values of non-market producers (general government) ** and non-market producers (private non-profit institutions serving households) * are equal to production costs (total sum of expenditures), no business surplus is created, but it is only created in market producers.

(Changes made from the 2011 I-O Tables)

Special local corporation taxes classified under "9411-000 Indirect taxes (except customs duties and commodity taxes on imported goods)" in the 2011 I-O Tables is integrated into this sector.

Column Code	Row Code	Sector Name
	9311-000	Consumption of fixed capital

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

Values of fixed assets will be consumed during production processes. This is the cost in reserve to supplement the depreciated portion of the values, and it covers depreciation and incidental capital loss. Depreciation reserve is to prepare for normal wear and tear as well as for damages of fixed assets. Incidental capital loss reserve is for incidental losses like accidents. However, losses from rare and major disasters such as the Great East

Japan Earthquake are not targeted in Input-Output Tables.

The scope of fixed capital subject to capital depreciation reserve is the same range of that of "Gross domestic fixed capital formation."

(Changes made from the 2011 I-O Tables)

(1) Following the recommendation of 2008 SNA to treat R&D as capital and elaborate on the treatment of cost of ownership transfer, the definition and scope of this sector are expanded.

(2) Output of building renovations in the "Repair of construction" sector involving the enhancement of the functionality and/or life expectancy of buildings is treated as fixed assets and included in the said sector.

(Notes)

Market valuation was introduced in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
	9321-000	Consumption of fixed capital (Social fixed capital)

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

This represents reserved costs to supplement depreciated portion of fixed assets owned by general government. The scope covers depreciation and incidental capital loss same as "9311-000 Consumption of fixed capital." The scope of fixed capital is the same range of that of "Gross domestic fixed capital formation (public)."

(Changes from the 2011 I-O Tables)

(1) Following the recommendation of 2008 SNA to treat R&D and defense equipment as capital, the definition and scope of this sector are expanded.

(2) Output of building renovations in the "Repair of construction" sector involving the enhancement of the functionality and/or life expectancy of buildings is treated as fixed assets and included in the said sector.

(Notes)

Market valuation was introduced in the 2011 I-O Tables.

Column Code	Row Code	Sector Name
	9411-000	Indirect taxes (except custom duties and commodity taxes on imported goods)

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

(1) Indirect taxes are duties and outside duty burden to be levied on production, sales, purchase and/or usage of goods and services. These are not income but recognized as expenses by the Taxation Law and are to burden by final purchasers. Further, outside tax revenues that are not classified as operating income of the government but levied for financial purposes are also included in indirect taxes. However, "customs duties" and "imported goods commodity tax" are not included in direct taxes but recorded as exemption items for the final demands.

(2) Consumption tax, alcohol tax, tobacco tax, gasoline tax, and car weight tax fall in the government tax category. Tobacco tax (local) and fixed asset tax fall in the local government tax category. Fees collected with revenue stamps fall in outside taxation item category and the total amount is treated as indirect taxes.

(3) Fixed asset taxes are not only levied on factory lands and depreciative assets but also on housing and housing lands. Total amount of fixed asset taxes are treated as indirect taxes.

Namely, housings are all supplied by market producers in terms of system of national accounts and I-O Tables, and housings, even though they are owned by individuals for living, are nominally rented from the sector "5531-01 House rent (imputed house rent)" and their rents are recorded as imputed rent. Therefore, fixed asset taxes levied on self-owned housings shall be treated as indirect taxes same as taxation on corporations. Real estate acquisition tax and urban planning tax are treated as indirect taxes with the same reason.

(4) Some portion of car tax (50% of tax amount for convenience) are borne by households, and another 50% goes to indirect taxes as a portion borne by producers.

(Changes from the 2011 I-O Tables)

Commission fees paid to the central government by market producers (spectrum license user fees, permit fees, etc.) which were classified under this sector in the 2011 I-O Tables are included in "sales of goods and services" in "6111-01, -011 Public administration (central government) **" and "6112-01, -011 Public administration (local government) **" and a special local corporation tax is integrated into "9211-000 Operating surplus."

(Notes)

(1) Special local consumption tax was abolished as of March 31, 2000, but deferred payment of such tax exists afterwards. With regard to this issue, as with the 2005 and 2011

I-O Tables, costs for amusement, eating and drinking, lodging, etc. are included in final consumption expenditure inclusive of tax, and at hotels and eating and drinking establishments, etc., sales that include tax are counted, and special local consumption tax is considered as being an indirect tax where the column sectors bear the amount.

Column Code	Row Code	Sector Name
	9511-000	(less) Current subsidies

(Ministry or agency in charge)

Cabinet Office

(Definition, Scope)

Current subsidies refer to the grants that meet the following three conditions: (1) those paid by non-market producers (general government) ** to market producers; (2) those offered to cover the ordinary expenditures of market producers; and (3) those considered to lower the market prices of goods and services. Grants paid to market producers to support their investments or cover the loss of working assets are not classified as “subsidies” for the purpose of this sector. Grants paid by non-market producers (general government) ** to other non-market producers (general government) ** or to non-market producers (private non-profit institutions serving households) * do not meet condition (1) above and therefore are not categorized as “subsidies.”

(Notes)

The definition and scope of this sector were adjusted to comply with the System of National Accounts in the 2011 I-O Tables.